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ABSTRACT

The bulk of this interim report consists of data on the anatomy of the British academic profession and its recent historical development and an intensive analysis of the results of a survey of a representative sample of British academicians. The data and discussion are organized into 8 broad chapters on: structure and growth of the British academic profession since 1900, material conditions, attitudes toward expansion, institutional determinants of teaching and research orientations, characteristics and correlates of teaching and research orientations, attitudes toward professorial status and power, the politics of British academic men, and types of academic orientations among university teachers. The appendices contain additional statistical tables and notes, questionnaires, and a chronology of research operations. (JS)

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A STUDY OF
THE BRITISH UNIVERSITY TEACHERS

by

A. H. Halsey and Martin Trow

with

the assistance of Oliver Fulton

U. Calif Berkeley
Inst of Intn Studies

HE002437

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August 1967

PREFACE

This report would probably not have gained even limited circulation in its present form were it not for our contractual obligations to one of the agencies which provided support for the research. We are, as the reader will see, very much in mid-stream, and the necessity to prepare an account of our progress to date for the U.S. Office of Education was initially viewed as an interruption of our analysis of the data and the exploration of their meaning. But what began as a fulfillment of contractual obligations has become a useful opportunity to review what we have been doing, and to put our thinking in a form that can be criticized by the few but competent readers to whom this report will circulate. In any case we are now grateful for the necessity of having had to produce this interim report of our work.

The report should perhaps be entitled "Notes Toward a Study of British University Teachers." The work here reported very unevenly approaches our ultimate intentions. The bulk of the report consists of data on the anatomy of the British academic profession and its recent historical development, and an intensive analysis of the results of our survey of a representative sample of British academic men centering on certain key themes. Other very important issues are raised but not fully explored: for example, the significance of the characteristics of the academic profession both for the character of British higher education, and for its future development. Some of the data we have gathered have not yet been fully exploited: for example, the roughly 140 intensive interviews we held with academic men, and the large body of data gathered by the Robbins Committee through its own survey of British academic men. Nevertheless, we are far enough along so that a reader may get a sense of what we are about--enough, anyway, so as to be able to tell us where we are going astray.

This report also gives us the welcome opportunity to acknowledge the very great help and support we have had from many sources. First among these, perhaps, is the Committee on Higher Education, its chairman, Lord Robbins, and its chief social statistician, Professor Claus Moser, who made available the original survey data they had gathered, and enabled us to return to their representative sample of British university teachers with a further questionnaire of our own. At various stages of our work, support and assistance was provided by Nuffield College and the Department of Social and Administrative Studies, both of Oxford University; the Elmhurst Foundation; Sussex University; the Atlas Computer at Harwell; the data processing facility of the Oxford Regional Hospital Board; the Center for Advanced Study in the Behavioral Sciences in Palo Alto; the Department of Sociology of the University of California, Berkeley; the Survey Research Center and the Institute of International Studies, both also at Berkeley; and the U.S. Office of Education. Among the many individuals who have helped our work are Dr. (now Professor) Peter Collison, who helped with the intensive interviewing; Mrs. Catherine Chandler, who supervised the organization of the survey, and Mrs. Margaret Ralph, who succeeded her; Mrs. Cleo Stoker of the Institute of International Studies, who creatively administered the Office of Education grant; and Mrs. Etha Webster, who painstakingly supervised the typing of the manuscript. To them, our warmest thanks.

Our greatest debt, of course, is to the very large number of British university teachers, of every rank and subject, who gave up the time necessary to answer our questions, either during intensive and lengthy interviews or on our scarcely shorter mailed questionnaires. The community of scholars, extending across disciplinary lines and national boundaries, has been no abstraction but the most vital reality for us in the course of this work. It is part of what we are studying; it is also in very large part what has made our study possible.

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CHAPTER I

THE BRITISH ACADEMIC PROFESSION:
STRUCTURE AND GROWTH SINCE 1900

There are now (1966) over 20,000 university teachers in Great Britain including some 2,000 part-timers. In this book we survey the life and opinions of this large and heterogenous group. At the outset however we must try to sketch the structure of the university teaching professions and their development in the recent past. The numerical outline presented in this chapter covers the period during which the role of the university teacher has been transformed by expansion and specialization. This means that the number of universities, colleges and departments has grown, that the status structure of the professions has lengthened and that specialisms have proliferated. These developments can be traced in published statistics(1) on the distribution of university teachers between universities, grades or academic ranks and faculties or subjects. We deal with each of these fundamental divisions in turn, tracing their development in this century as far as available statistics allow.

University groups

Among the 31 universities(2) in Britain in 1966, seven university groups may be distinguished both academically and socially according to age and location. These divisions have significance for the life and concern of the university teacher: we describe them here in the order of their numerical importance.

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(1) The statistics however are unusually imperfect because of changes in administrative habits during the course of the century and especially because of the vagaries of Oxford and Cambridge records. The main source from 1919 is the U.G.C. in its annual and quinquennial returns.

(2) Excluding Colleges of Advanced Technology and the Manchester College of Science and Technology, and ignoring the collegiate divisions in Oxford, Cambridge, London and Wales.

The largest group, accounting for nearly a third of all university teachers, is made up of the nine universities in the great provincial industrial cities. Most of the "major redbrick" universities received their charters within a few years of the turn of the nineteenth and twentieth centuries. The second largest group, employing 22% of university teachers, is made up of the constituent colleges of the University of London. London received its charter in 1836 mainly on the basis of the recently formed University and Kings Colleges. This federal university now includes thirty-three self-governing schools and eleven institutes directly controlled by the university. Next in order making up 15% of the total are the five Scottish universities. Of these St. Andrews is the oldest with a foundation in 1410 though with an additional college at Dundee founded in 1881. Aberdeen, Edinburgh and Glasgow are fifteenth and sixteenth century foundations. The Royal College of Science and Technology at Glasgow goes back to 1796 but received a charter as the University of Strathclyde in 1964. The fourth group in numerical order is that of the ancient English foundations at Oxford and Cambridge with their origins in the late twelfth and early thirteenth centuries. Their dons make up 12% of the total. Fifth is a group of six "minor redbrick" universities. Five of these were at one time provincial colleges preparing students for the examination of the University of London. They received their charters between 1948 and 1957. The other institution which is included in this group is the University of Reading which was founded in 1926. The group accounts for 10% of all university teachers. The sixth group constitutes the University of Wales which received its charter in 1893 though several of its constituent colleges have their origins earlier in the nineteenth century.

Aberystwyth began in 1859, Bangor in 1885, Cardiff in 1884 and Swansea in the 1920's. St. David's, Lampeter, also receives grants from the University Grants Committee under a scheme agreed in 1961 through the University College of South Wales, Cardiff. Finally there are the English "new universities" of East Anglia, Keele, Sussex, York, Lancaster, Kent, Essex and Warwick. Only the first four of this group of eight had students in 1963 when their staff made up 2% of the British academics.

The distribution of university teachers among these university groups in 1963-64, i.e., at the beginning of the "Robbins" period of redefinition and expansion of higher education, is set out in more detail in Table 1.1 (on the following page) again in order of numerical importance.

Perhaps the most obvious as well as the most significant characteristic of the institutional setting of the British University teacher is its small scale. Only London University is large by modern standards and, quite apart from its modest size by comparison with Berkeley or the Sorbonne, its staff of 3,750 is in fact divided among forty-four more or less autonomous institutions into groups of teachers and research workers numbering typically less than a hundred. Again, Oxford and Cambridge, though of medium size in the range of universities all over the world, each has its 1,000 members divided into small collegiate societies. The largest universities with unitary organization are at Leeds, Manchester, Birmingham, Edinburgh and Glasgow. Their numbers of staff in 1963-64 were 964, 858, 740, 750 and 730 respectively, and it is precisely in these universities where there is some uneasiness about size.(3)

The milieu in which the role of the university teacher is played remains an intimate one. The typical university department has seven or eight members of the academic staff. (The milieu, in other words, remains, in this respect

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(3) See Chapter III for opinions among academics on the size of university.

Table 1.1 British University Groups

University Group	University	Full-time Staff in 1963/64	
		%	
Major Redbrick	Birmingham	4.4	
	Bristol	3.2	
	Durham	1.4	
	Leeds	5.7	
	Liverpool	3.7	
	Manchester	5.1	
	Manchester College of Science & Technology	2.4	
	Newcastle	3.2	
	Sheffield	3.2	
		32	(5456)
London	London	22	(3750)
Scotland	Aberdeen	2.1	
	Edinburgh	4.4	
	Glasgow	4.3	
	St. Andrew's	1.1	
	Dundee	1.3	
	Strathclyde	2.1	
		15	(2600)
Ancient English	Oxford	6.6	
	Cambridge	5.5	
		12	(2059)
Minor Redbrick	Exeter	1.2	
	Hull	1.5	
	Leicester	1.3	
	Nottingham	2.2	
	Reading	2.4	
	Southampton	1.3	
		10	(1669)
Wales	Aberystwyth	2.0	
	Bangor	1.2	
	Cardiff	1.6	
	Swansea	1.4	
	Welsh Nat. School of Medicine	0.2	
	St. David's, Lampeter	0.1	
		7	(1121)
New English	East Anglia	0.1	
	Essex	-	
	Keele	0.9	
	Kent	-	
	Lancaster	-	
	Sussex	0.7	
	Warwick	-	
	York	0.2	
		2	(331)
Total		100	(16,986)

Notes: Statistics taken from U.G.S. Returns for 1963-64 Table 9. Cambridge figures exclude college fellows without university posts. Oxford figure is for 1964/65 from Franks Report Vol. II, Table 29.

at least, perfectly compatible with the distinctive English idea of a university.)

The second fundamental division of the university teaching professions is by academic rank. The distribution in 1963-64 is shown in the last column of Table 1.2 (on the next three pages) for each university group and for all universities except Oxford and Cambridge. The grade structure outside the ancient English universities is a hierarchy with four levels. At the bottom, and for most recruits the beginning, there is a nominally probationary grade of assistant lecturer. Next comes the main career grade of lecturer which is subdivided by an efficiency bar, reached after six or seven years service in the grade, and passed after review of the individual's competence and performance as a university teacher and researcher. Third are posts of seniority but without professorial rank--the reader and the senior lecturer. Promotion to this level is by individual selection and there is a restriction on numbers to two ninths of the whole non-professorial staff, though the medical faculties are exempted from this restriction. In some universities the distinction between readers and senior lecturers is a horizontal one: readers are recognized primarily for research and senior lecturers for teaching. In other universities the division constitutes a further elaboration of the hierarchy, the readers having higher rank. At the top are the professors, though here again the beginnings of further elongation of the pyramid were to be seen in 1963-64 in distinctions between professorial heads of departments and other professors not adorned (or burdened) with this authority.

Moving down the ranks, the numerical proportions for all universities were: professors 11.5 per cent, readers 6.5 per cent, senior lecturers 12.8 per cent, lecturers 46.0 per cent and assistant lecturers 10.5 per cent, leaving 12.7 per cent in posts of various kinds outside the main hierarchy.

Table 1.2 FULL TIME ACADEMIC STAFF IN GREAT BRITAIN 1910-1965

By University Group and Status (excluding Oxford and Cambridge)
(per cent)

	1910-11*	1919-20**	1929-30	1938-39	1949-50	1959-60	1963-64
A. Major Redbrick Universities							
Professors	30	28	21.4	18	13	11	10
Readers Asst. Professors Independent Lecturers			6.3	6	5	4	5
Senior Lecturers	70	72	-	-	9	12	12
Lecturers			41.0	48	42	52	48
Asst. Lecturers			22.2	18	18	9	8
Others			9.1	10	13	12	17
Total	(626)	(849)	(1081)	(1349)	(2743)	(4148)	(5456)
B. London							
Professors	31	31	21	19	14	13	14
Readers Asst. Professors Independent Lecturers			16	16	12	15	14
Senior Lecturers	69	69	-	-	10	11	12
Lecturers			29	31	34	42	40
Asst. Lecturers			27	26	21	12	11
Others			7	8	9	7	9
Total	(202)	(601)	(856)	(1057)	(2146)	(3072)	(3750)
C. Minor Redbrick							
Professors	27	31	20.5	16	12	11.3	11
Readers Asst. Professors Independent Lecturers			10.0	8	4	2.0	4
Senior Lecturers	73	69	-	-	3	6.3	10
Lecturers			43.0	39	43	54.0	48
Asst. Lecturers			18.0	20	22	10.4	11
Others			8.5	17	16	16	16
Total	(104)	(151)	(258)	(324)	(842)	(1236)	(1669)

(continued on next page)

* Figures in Group A for these years include the staff of the Merchant Venturers' Technical College, formed as part of Bristol University, "to afford preparation for an industrial or commercial career."

**For 1919-20 Heads of Departments are counted as Professors. The numbers may then include some non-professorial Heads of Departments.

Table 1.2 (continued)

	1910-11	1919-20	1929-30	1938-39	1949-50	1959-60	1963-64
D. Wales							
Professors	42	37+	25	23	17	13.9	11.7
Readers) Asst. Professors) Independent Lecturers)			6	12	8	0.3	2.4
Senior Lecturers	58	63	-	-	14	13.9	13.1
Lecturers			26	35	39	47.0	47.3
Asst. Lecturers			28	23	21	12.8	10.3
Others			15	16	7	12.1	15.2
Total	(143)	(178)	(301)	(371)	(512)	(799)	(1121)
E. Scotland++							
Professors	32	35	23	22	13	11.1	10
Readers) Asst. Professors) Independent Lecturers)			8	7	5	3.0	3
Senior Lecturers	68	65	-	-	10	16.5	18
Lecturers			41	44	46	50.0	49
Asst. Lecturers			27	25	19	15.6	15
Others			1	2	7	3.8	5
Total	(403)	(498)	(553)	(718)	(1439)	(2120)	(2600)
F. English New Universities							
Professors						13.9	14
Readers) Asst. Professors) Independent Lecturers)						.9	3
Senior Lecturers						2.8	10
Lecturers						55.6	42
Asst. Lecturers						24.0	18
Others						2.8	13
Total						(108)	(331)

(continued on next page)

+ For 1919-20 Heads of Departments are counted as Professors. The numbers may then include some non-professorial Heads of Departments.

++The Board of Education Report for 1910-11 gives only staff numbers at Dundee University College. Staff numbers for Scotland have been calculated from the calendars of the Scottish Universities for 1910-11.

Table 1.2 (continued)
(per cent)

G. All Universities in Great Britain except Oxford and Cambridge	1910-11	1919-20	1929-30	1938-39	1949-50	1959-60	1963-64
Professors	31.4	31.4	21.8	19.6	13.4	12.0	11.5
Readers Asst. Professors Independent Lecturers			9.6	8.8	6.4	6.2	6.5
Senior Lecturers	68.6	68.6	-	-	9.5	12.0	12.8
Lecturers			36.2	40.4	40.4	48.6	46.0
Asst. Lecturers			24.6	22.4	19.6	11.6	10.5
Others			7.8	8.8	10.7	9.6	12.7
Totals	(1,478)	(2,277)	(3,049)	(3,819)	(7,682)	(11,483)	(14,927)

These figures are national and so disguise many variations between universities and faculties. Moreover they omit Oxford and Cambridge where the staff structure is made very different by the existence of the colleges. London has a high proportion of professors and readers, partly because of the strength of the medical faculty. The new English universities have a high proportion of professors as 'founder members'. Scotland and Wales have few readerships though the former has a compensatingly high proportion of senior lectureships. The minor redbrick universities are rather below the norm in all senior ranks. Oxford and Cambridge have a smaller than average proportion of professorships, as may be seen from Table 1.3 (on the following page), and the Franks Commission has recommended that Oxford should seek more chairs. The fact that the ancient English universities have no senior lectureships is of no significance in the context of the collegiate staff structure.(4)

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(4) The problems of the academic career structure are not, of course, exhausted by this preliminary outline. They will be taken up more extensively in Chapter II.

Table 1.3 Full Time Academic Staff at Oxford and Cambridge (per cent)

	Oxford 1922**	Oxford and Cambridge 1961/62*		Oxford 1964/65***
Professors	18	9		9
Readers	3	7		7
Lecturers	18	37		30
Assistant Lecturers (C)	60	2	40	45
CUF Lecturers (O)		15		
Demonstrators (C)		3		
Department Demonstrators (O)		2		
University Research Staff		8		
College Research Fellows		5		
Other College Teachers		5		
Others	1	7		9
Total	100%	100%		100%
(N)	(357)	(1,993)		(1,127)

Sources:

*Robbins Report Appendix III

** and *** University of Oxford Report of Commission of Inquiry (The Franks Report). Vol II, p. 39.

The Robbins survey of university teachers, and our own survey of the same sample, allows us to examine the distribution of ranks among the several broad academic fields, within age categories. Table 1.4 (below) shows that by age

Table 1.4 Percentage of Senior Grades, by Subject and Age

Age	Arts	Social Science	Natural Science	Technology
Under 30	0	6	2	0
30-34	3	4	13	14
35-39	18	34	38	30
40-44	42	43	65	60
45 and over	67	61	86	71

45 only about a third of all academic men have not gained one of the senior grades. Though the lectureship is traditionally and officially thought of as the "career grade," in actuality it is so only for a minority of academic men in every subject.

Looking at differences among the subject areas (see Table 1.5 on the following page), it can be seen that natural scientists gain promotion, on average, earlier and more often than men in other subjects. Among men in the 35-39 year age-bracket, twice as many scientists (38%) as arts teachers (18%) had gained one of the senior grades. In this respect the natural scientists resemble the social scientists. However, among men 45 years and older, only 15% of the scientists had not gained a senior grade, as compared with 34% of teachers in arts subjects and 40% of the social scientists. The pattern of both earlier and proportionately more promotion of scientists may be related to their research orientations and productivity. It may also be related to the relative scarcity of able scientists during a period of rapid expansion of university science departments, and of the competitive pulls of government and industrial research, and of foreign (largely American) universities.

The third main division of the university teaching professions is between subjects or faculties. Here, at the turning point of British higher education which is marked by the Robbins Report, it is important to notice that the traditional stereotype of the academic as an arts don had already become seriously inaccurate by 1963-64. In fact the arts faculties made up exactly a quarter of the total. The largest single faculty was pure science (28%). The remainder, in descending order of size, were medicine 16%, applied science 14%, social studies 9%, agriculture and forestry 4%, dentistry 2% and veterinary science 2%. Thus, even assuming that half the social scientists are 'pure', more than 40% of academics work in some kind of natural or social science-based technology. The technologist, thus broadly defined, had the most

Table 1.5 Rank, by Subject and Age (per cent)

	Arts					Social Science					Natural Science					Technology				
Rank	30-	30/ 34	35/ 39	40/ 44	45+	30-	30/ 34	35/ 39	40/ 44	45+	30-	30/ 34	35/ 39	40/ 44	45+	30-	30/ 34	35/ 39	40/ 44	45+
Professor	0	0	5	26	38	0	0	12	20	26	0	4	6	13	32	0	2	9	14	21
Reader	0	3	5	14	12	0	4	6	10	12	0	1	11	10	24	0	2	9	21	18
Senior Lecturer	0	0	8	2	17	6	0	16	13	23	2	8	21	42	30	0	10	12	25	32
Lecturer	75	88	77	58	29	61	86	56	50	37	72	84	54	33	11	83	86	69	39	26
Assistant Lecturer/ Other	25	8	5	0	5	33	11	10	7	3	26	3	7	2	4	17	0	0	0	3
Totals	(59)	(60)	(62)	(50)	(129)	(36)	(28)	(50)	(30)	(78)	(96)	(77)	(81)	(52)	(101)	(24)	(51)	(42)	(28)	(34)

plausible claim to be thought of as the typical university teacher--and this was before the Colleges of Advanced Technology were admitted into the university fold.

Expansion since 1900

Apart from pauses imposed by war and economic depression the academic professions have grown continuously during the present century. The present number of upwards of 20,000 was something less than 2,000 in 1900. At the beginning of the century there were 471 members of congregation at Oxford (the resident M.A.'s)(5): by 1964 there were 1,358.(6) There were 525 full and part-time teachers in the major redbrick universities in 1900(7): by 1964 in these universities there were ten times as many full-time staff alone (5,456)(8); the comparable figures for London were 248 and 3,750--a fifteen-fold increase.

The pattern of growth from 1910 in each of our seven university groups is plotted in Graph I (on the following page). Every group has increased its numbers. Two of them--the ancient English colleges at Oxford and Cambridge and the Scottish universities--are historically and socially distinct from the rest. They both have their roots in pre-industrial Britain and in their different ways the Oxford don and the Scottish professor command a relatively higher social esteem. Nevertheless, neither has been untouched by the growth and elaboration of the professions in industrial society. Both have expanded

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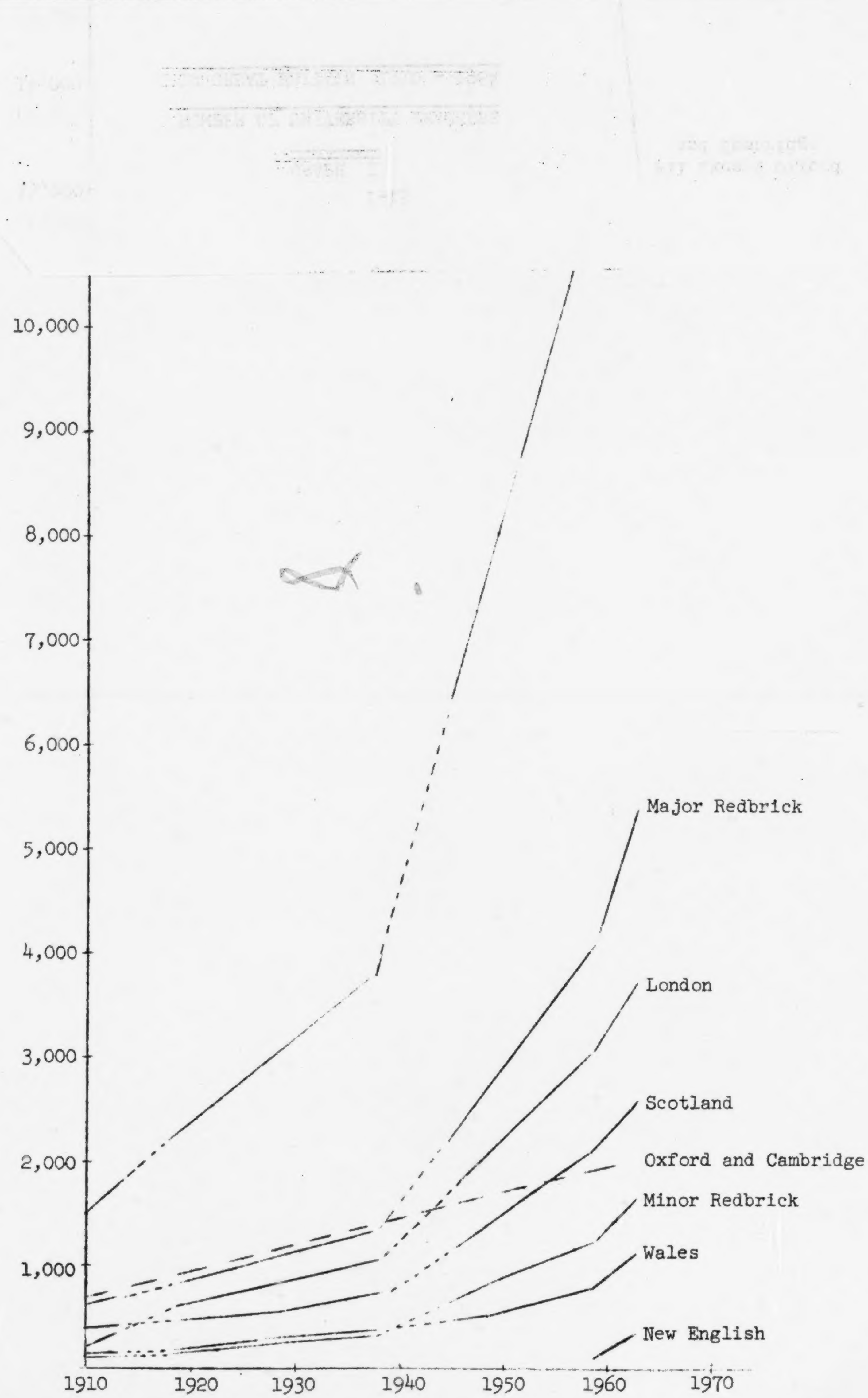
(5) Oxford University Calendar, 1900

(6) University of Oxford Report of Commission of Inquiry, Vol. II, p. 6.

(7) From Reports from University Colleges to Board of Ed., Cd. 845, 1901.

(8) From U.G.C. Returns, Table 9, Cmnd. 2778.


10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
1910
1920
1930
1940
1950
1960
1970
Major Redbrick
London
Scotland
Oxford and Cambridge
Minor Redbrick
Wales
New English

throughout the twentieth century. Exact numbers for dons at Oxford and Cambridge at the beginning of the century are not available, but there were probably about 700 including all university teachers and college fellows. There were 471 resident M.A.'s at Oxford in 1900 and 3,446 undergraduates. Oxford's total academic staff in 1922 was 357 rising to 1,127 in 1964/5(9) with 9,450 students. At Cambridge the number of dons primarily engaged in teaching and research, with or without college fellowships, rose from 458 in 1928 to 1,001 in 1959(10) when there were 8,997 students. The Scottish full-time academic staff numbered 498 in 1920 and 2,600 in 1963/64.

The pattern of expansion

The course of expansion has had three phases. The first began around the turn of the century with the foundation of the civic universities and continued after the First World War until the depression years of the nineteen-thirties. The second, more rapid, phase of expansion occurred after the Second World War. Unlike its predecessor, it did not peter out but instead has formed the basis for a third phase of 'Robbinsian' expansion in the nineteen-sixties and seventies.

At the beginning of the first phase Oxford and Cambridge, quite apart from their overwhelming academic and social importance, were numerically the strongest group. But by the end of the first phase, just before the Second War the ancient universities had been surpassed by the major redbrick universities and overtaken by London. Our estimate is that academic staff at Oxford and Cambridge grew from 700 at the beginning of the century to something like 1,000 in the 1930's. The major redbrick staff rose from 626 in 1910 to 1,349 in 1938/39 while London rose from 202 to 1,057. In 1900 there were twelve colleges sending returns to the Board of Education. The civic universities at that time included Mason University College at Birmingham which had been incorporated from 1897, Bristol University College founded in 1876, the Yorkshire College at Leeds (1874), Liverpool University College (1881), Owens College in Manchester which had been incorporated in 1845, Durham College of Science at Newcastle (1871) and Sheffield University College (1897). Within the first decade of the century Birmingham, Bristol, Leeds, Liverpool, Manchester and Sheffield all gained charters as universities. Then, together with Durham and its Newcastle constituent, these civic universities began to lead the expansion of the British university system and have continued to do so throughout the century.

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(9) University of Oxford Report of Commission of Inquiry, The Franks Report, Vol. II.

(10) University of Cambridge, The Bridges Report.

The second phase of growth after the Second War included the granting of independent charters to the former provincial university colleges (which took London degrees) at Nottingham, Southampton, Hull, Exeter and Leicester. The last named became independent in 1957 bringing the total number of British universities to twenty-one. Meantime the establishment of the University College of North Staffordshire at Keele without tutelage from London was the precursor of a much-publicized movement at the end of the 1950's to found new universities with independence ab initio. The first of these, Sussex, admitted its first students in 1961. Subsequently East Anglia, York, Essex, Kent, Warwick and Lancaster have received charters and a new Scottish university, Strathclyde, has been formed out of the Royal College of Science at Glasgow. No doubt these new foundations will add significant numerical strength to the staff of the post-Robbins system of higher education and so contribute to the third phase of expansion. But in the second phase they counted for little. The bulk of the expansion between 1947 and 1964 was borne by the established universities in the industrial provincial cities, by London and by the ancient universities in England and Scotland.

The changing hierarchy

In the foundation years of the civic universities the professors constituted the academic staff.(11) But in order to carry on their work they had to appoint assistants. These constituted a jumble of junior men and women with ill-defined status, salaries and conditions who usually had *ad hoc* contracts either with the institution or with the professor himself. Before the first war the assistants had come to outnumber the professors and it became apparent that, as a permanent feature of the academic structure, the titles, status and conditions of non-professorial staff had to be recognized and regulated. The subsequent trend has been towards an increasingly elaborate hierarchy. (See Tables 1.2 and 1.3.) Between 1910 and 1964 the proportion of academics with professorial rank fell from 31.4 per cent to 11.5 per cent. Before 1920 the ranks below the professorship were neither equivalent from one university to another nor distinguished in the Board of Education statistics. Many of them had low status and low pay but, as may be seen in Table 1.2 the proportion of assistant lecturers has declined especially during the postwar period of expansion and the proportion in the main career grade--the lectureship--has risen. Thus there have been two processes at work somewhat against each other. On the one hand the hierarchy has been lengthened with the creation of a non-professorial staff and a corresponding decrease in the proportion of chairs.

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(11) They often had to engage in struggles with local trustees to establish the elements of academic freedom and self-government which they held to be appropriate to their professional status and which many of them had brought to their new universities from the traditional academic guilds of Oxford and Cambridge. They quickly won academic democracy in practice if not in formal constitutions.

On the other hand within the non-professorial ranks there has been a tendency towards upgrading with a corresponding decrease in the proportion of assistant lecturers. In recent years there has been renewed pressure towards increasing the proportion of senior posts. The Association of University Teachers advocates the abolition of the assistant lecturer grade, to which in any case recruitment is more difficult in a period of expansion. The Association also supports a suggestion of the Vice-Chancellor's Committee in 1962 that the restriction of readers and senior lecturers to two ninths of all non-professorial posts be revised to one third.

A second trend is also worth noting. There has been a decrease during the century of part-time university teaching. The Tables 1.2 and 1.3 do not show this since they record only full-time staff: but the trend may be illustrated from the fact that while the number of full-time academics has risen by at least 17,000 in the past forty years, the number of part-timers has remained what it was in 1920 at about 2,000. This change to full-time university work has been especially important in medicine. The structure of the professions is distinctive at the ancient collegiate universities but, as may be seen from Table 1.3, they have experienced a similar development. As the number of dons has increased the professors have formed a decreasing proportion of the total, declining from one sixth to one tenth of the academic staff at Oxford since 1922.

The changing balance of studies

University studies in the twentieth century have both widened in scope and shifted in the balance of the faculties. The first change, however, has been continuous while the second has fluctuated. Widening the scope of studies has meant an increasing specialization of university teachers in particular branches of knowledge and to some small extent a division of labor between research and teaching and between undergraduate and graduate supervision. One crude but dramatic illustration of the widening range of specialisms may be derived from U.G.C. statistics on the branches of study on which advanced students are engaged. In 1928 123 subjects were distinguished: a quarter of a century later there were 382. In the meantime economics had been divided into economics, industrial economics, econometrics and economic history; the number of branches of engineering had risen from 7 to 22 and such subjects as Ethiopic, fruit nutrition, immunology, personnel management, medical jurisprudence and space science had appeared.

The arts faculties have declined continuously since the beginning of the 1930's when they accounted for half of the student population. As we have noted, only a quarter of the university teachers are now in the arts faculties. However, this decline had not been a continuation of previous trends. On the contrary, the arts faculties had expanded rapidly from the end of the First War at the expense of medicine and applied science. These developments were remarked by the U.G.C. in their report for 1928-29 and attributed to "the attraction exercised during a period of bad trade and restricted opportunities in other professions, by the securer and greatly improved prospect of the profession of teaching; in Scotland, the general tendency [was] intensified by the official requirement that only graduates [could] now normally be admitted to the Provincial Centres for training as men teachers."(12) Nevertheless, despite the continuation of "bad trade" in the 1930's the trend was reversed and the medical faculties expanded rapidly.

After the Second War, while there was further proportionate decline in arts, the pure sciences expanded to become the largest faculty, medicine fell back and the technologies and social studies increased their share to more than a quarter of the whole. The figures are shown in Table 1.6.(13)

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(12) U.G.C. Report 1928/29, p. 6.

Table 1.6 Academic Staff or Students by Faculty 1919-1964*

	1919-20**	1928-29	1938-39	1949-50	1959-60	1963-64
	%	%	%	%	%	%
Arts	38.7	53.3	44.8	43.6	27.3	25.1
Social Studies	-	-	-	-	6.8	9.4
Pure Science	18.3	16.7	15.5	19.8	25.7	27.9
Applied Science Technology Agriculture Forestry	16.4	11.1	12.6	16.0	19.3	18.1
Medicine Dentistry Veterinary Science	26.6	18.9	27.1	20.6	20.9	19.5
Total	(43,018)	(44,309)	(50,246)	(85,421)	(11,798)	(15,259)

*From U.G.C. Returns

**Oxford and Cambridge student numbers were not included in U.G.C. Returns for 1919-20. These numbers were taken from the returns for 1922-23, the first year they were included, and added to the numbers for other universities given in the 1919-20 returns.

Note: Student numbers are given for the years 1919-20, 1928-29, 1938-39 and 1949-50, and include Oxford and Cambridge. Staff numbers are given for the years 1959-60 and 1963-64 and exclude Oxford and Cambridge lecturers and below.

Age and sex

We have not been able to reconstruct the history of the age structure of the university professions. Presumably the celibacy rule in Oxford and

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(13) The figures for 1919-1950 are for students and therefore, since we have used them here to represent staff, the assumption is made that staff/student ratios are equal between faculties.

Cambridge, which continued into the 1860's, must have distorted the age structure to produce a relatively old group of bachelor dons and a younger group of unmarried fellows with relatively few in their late thirties and forties.

Expansion is also a disturbance to the age structure of any profession. At the end of the first post-World War II quinquennium the U.G.C. thought that, because of expansion, the average age had probably never been younger than it then was. However, the renewed rise in the rate of expansion in the 1960's has made the average university teacher younger still. The median age of university teachers by grade and faculty in 1961/62 is shown in Table 1.7. By 1965 the age structure of the several faculties was as shown in Table 1.8. The increased rate of expansion is reflected in a greater proportion of younger staff than in 1962--the biggest increase in the groups under 30 years of age being in arts. The over-40's account for almost the same proportions as they did in 1962 so there has been a relative decline in the numbers between age 30 and 40. Just under 65 per cent of all university teachers are 40 years old or younger.

The proportion of women academics has probably risen slightly during the century with the increased entry of women into the universities, but they still constitute a small minority of 10 per cent who tend to concentrate in the lower ranks and the faculties of arts and social studies.(14)

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(14) See I. Summerkorn, British Academic Women, London University Ph.D. Thesis, 1966.

Table 1.7 Median Age of Teachers, by Grade and Faculty G. B. 1961/2

				YEARS			
	Humanities	Social Studies	Science	Applied Science	Medical Subs.	All Teachers	Sample nos.
GRADE							
Professors	53	50	49	51	53	51	381
Readers	48	47	48	39	47	47	187
Senior Lecturers	51	49	48	46	42	47	380
Lecturers	39	40	35	35	35	37	1450
Assistant Lecturers	29	28	28	27	28	28	294
Other grades	29	38	29	29	32	31	314
All teachers	39	42	36	37	39	38	3006
Sample numbers	753	432	898	405	518	3006	

Source: U. T. Survey

Table 1.8 Age Distributions of Staff 1964/5

Age	Arts		Science		Technology		Medicine		All		
		%		%		%		%		%	% (1962)
-25	306	8.4	205	7.7	76	4.4	58	3.4	645	6.6	(5.3)
26-30	775	21.2	731	27.4	343	19.7	285	16.6	2134	21.8	(17.2)
31-35	552	15.1	544	20.4	330	19.0	341	19.8	1767	18.1	(20.6)
36-40	574	15.7	456	17.1	402	23.1	360	20.9	1792	18.3	(20.7)
41-45	509	13.9	322	12.1	258	14.8	263	15.3	1352	13.8	(12.4)
46-50	351	9.6	146	5.5	117	6.7	176	10.2	790	8.1	(9.5)
51-55	294	8.1	105	3.9	96	5.5	115	6.7	610	6.2	(6.6)
56-60	178	4.9	94	3.5	61	3.5	74	4.3	407	4.2	(4.7)
61-65	98	2.7	58	2.2	53	3.0	44	2.6	253	2.6	(2.6)
66-	15	0.4	6	0.2	4	0.2	4	0.2	29	0.3	(0.4)
Total	3652		2667		1740		1720		9779		

Source: A. U. T. Survey, 1965

The increased rate of expansion is reflected in a greater proportion of younger staff than in 1962--the biggest increase in the groups under 30 years of age being in Arts. The over-40s account for almost the same proportions as they did in 1962 so there has been a relative decline in the numbers between age 30 and 40. Just under 65% of all university teachers are 40 years old or younger.

Figures in brackets refer to 1962 Survey.

CHAPTER II

THE MATERIAL CONDITIONS OF THE ACADEMIC PROFESSIONS

> Lead Man holler, All men foller, Down you go
> For a working dollar (West Indian work song)

> A vicarious leisure class.... They have entered on the academic career to find time, place, facilities and congenial environment for the pursuit of knowledge, and under pressure they presently settle down to a round of perfunctory labor by means of which to simulate the life of gentlemen. (Thorstein Veblen, 1918)

> The social composition of the academic group, together with its economic status...makes for strongly democratic-minded faculties, typically plebeian cultural interests outside the field of specialization, and a generally philistine style of life. (Logan Wilson, 1942)

A gentleman is not subjected to wages, hours and conditions of work. He has no employer, no trade union and no machinery of negotiation, arbitration and conciliation. He may receive remuneration but never a rate of pay. He may follow a career or vocation but he does not have a job. A profession is, ideally, a self-governing body of guardians of a civilized branch of knowledge or expertise: it serves the public interest according to high standards set and protected by itself in corporation. Our thesis is that British university teaching is a traditionally gentlemanly profession which is in process of adapting itself to bureaucratic and specializing pressures from without and within. The nature and determinants of academic incomes must now be shown to accord with this pattern of development. The starting point must be some measure of the general level of academic salaries at the present time and a comparison of it with incomes in other groups, places and times.

Present salaries

The present basic salary framework for university teachers in Britain is based on an enquiry and recommendations by the National Incomes Commission which reported in March 1964.(1) Its proposals were accepted by the Government. The salary scales recommended by N.I.C. are set out in Table 2.1 (below) and their history from 1949 is summarized in Table 2.2 (on pages II-3 and II-4).

Table 2.1 Academic Salary Scales, January 1, 1965

	Non-Medical	Pre-Clinical	Clinical
Professor	Within range of £3,400 to £4,750 subject to a maximum average of £4,200 in each university		Within range of £3,500 to £4,445
Reader Senior Lecturer	Range of salaries with ranging maximum up to £3,250		Scales within the range of £2,500 to £3,600 (or £3,990 for post of special responsibility)
Lecturers	£1,400 x 85(13) to £2,505	£1,400 to maximum ranging from £2,505 to £3,250 (increments of £100 to £120)	£1,400 to maximum ranging from £2,500 to £3,600 (or £3,990 for posts of special responsibility
Assistant Lecturer	£1,050 x 75(3) to £1,275		

There has been no subsequent change in the system of grading and differentials but in April 1966 an "across the board" increase of five per cent was granted.

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(1) National Incomes Commission Report No. 3 Remuneration of Academic Staff in Universities and Colleges of Advanced Technology H.M.S.O. 1964, Cmnd. 2317. (A summary of the history of university salaries from the point of view of the U.G.C. may be found in Chapter 6 of the U.G.C.'s University Development 1957-62, H.M.S.O. 1964, Cmnd. 2267)

Table 2.2 Basic Salary Framework for Non-medical Posts, Preclinical Posts and Clinical Posts 1949-1963*

	1949	1954	1957	1960	1962	1963
A. Non-medical posts						
Date of announcement	16. 3.49	16.11.54	12. 3.57	3. 4.60	19. 4.62	24. 1.63
Effective date	1.10.49	1.10.54	1. 8.57	1. 1.60	1. 4.62	1. 4.63
	£	£	£	£	£	£
Professors: salaries ranging from	1,600	1,900	2,300	2,600	2,600	2,900
to	2,500	2,850	3,000	3,600	3,600	4,000
Readers and Senior Lecturers: a range of salaries with varying maximum						
up to	1,600	1,850	2,150	2,425	2,425	2,700
or in special cases to	--	--	2,250	2,525	2,525	2,800
Lecturers: scales rising generally						
from	500	650	900	1,050	1,150	1,250
maximum to	1,100	1,350	1,650	1,850	1,950	2,150
in a limited number of cases to	--	--	--	2,000	2,100	2,300
Assistant Lecturers: salaries						
ranging from	400	550	700	800	900	1,000
to	500	650	850	950	1,050	1,150
B. Pre-clinical posts						
Date of announcement	28. 2.49	16.11.54	12. 3.57	3. 4.60	19. 4.62	24. 1.63
Effective date	1.10.49	1.10.54	1. 8.57	1. 1.60	1. 4.62	1. 4.63
	£	£	£	£	£	£
Professors: salaries ranging from	2,000	2,250	2,300	2,600	2,600	2,900
to	2,500	2,850	3,000	3,600	3,600	4,000
Readers, Senior Lecturers and Lecturers						
scales rising from	600	700	900	1,050	1,150	1,250
to maxima ranging from	1,200	1,450	1,650	1,850	1,950	2,150
to	1,800	2,050	2,250	2,525	2,525	2,800

(continued on next page)

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*Since 1957, allowances of £100 for Professors, £80 for Readers and Senior Lecturers and £60 for others in the pre-clinical and non-medical staffs of London University have been payable. These are known as London Allowances. In earlier years £50 was payable to non-medical staffs, but in the case of Professors only within the maximum of the scale.

Table 2.2 (continued)

	1949	1954	1957	1960	1962	1963
C. Clinical posts						
Date of announcement	28. 2.49	16.11.54	12. 3.57	26. 9.60	19. 4.62	28. 5.63
Effective date	1. 4.49	1.10.54	1. 8.57	1. 1.60	1. 4.62	1. 4.63
	£	£	£	£	£	£
Professors: salaries ranging from	2,250	2,500	2,500	2,800	2,800	3,150
to	2,750	2,850	3,000	3,900	3,900	4,445
or in certain cases to	--	3,100	3,250	--	--	--
Readers, Senior Lecturers and Lecturers:						
scales rising from	600	700	900	1,050	1,150	1,250
to a maxima of	1,500-2,200	1,750-2,400	1,750-2,550	2,200-3,200	2,200-3,200	2,500-3,600
or in cases of special responsibility to	2,500	2,750	2,900	3,500	3,500	3,990

It will be seen from the tables that the grading structure of the university teaching professions begins with the assistant lecturership which, in practice, is probationary for the first three years, though promotion to the next grade--that of lecturer--is almost automatic. The lecturer grade is the main career status with its 13 annual salary increases. There is an efficiency bar on the scale at a point which varies from institution to institution and the crossing of this merit bar involves a review of the university teacher's performance and competence.(2) Promotion beyond the lecturer grade to the senior ranks of reader, senior lecturer or professor are by individual selection. There is however a limit on the proportion of non-professorial posts with senior status. In its quinquennial report for 1942-47, the U.G.C. suggested that one fifth would be an appropriate proportion of senior appointments. In 1959 this quota became two ninths and in its report, the National Incomes Commission stated that the U.G.C. were then about to consider a suggestion of the Committee of Vice-Chancellors that the ratio should be changed to one quarter. By the summer of 1966 no further action had been taken. The quota, it should be noted, does not apply to medical faculties.

In addition to the basic salaries there has been a system of family allowances which began at the London School of Economics before the War and was nationalized immediately after the War. These allowances of £50 per child were however discontinued from January 1, 1965 following the N.I.C. Report. Teachers already entitled to these allowances retained them for as long as their appointment lasts, but they are not given to new entrants to the profession or to those who are promoted to a higher grade.

As may be seen from Table 2.1 the non-medical faculties have lower salary scales than those of the clinical staff of the medical faculties. There is also an intermediate differentiation for pre-clinical lecturers, though not for the senior ranks.

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(2) The Association of University Teachers advocates abolition of the assistant lecturer grade.

With minor variations these scales are national but the collegiate complications at Oxford and Cambridge are such as to result in a distinctive staff structure. The chief differences at Oxford, to which Cambridge is similar though not identical, are summarized by the Franks Commission as follows:

(a) all non-clinical professors receive the same salary (though) some do also receive allowances for departmental responsibilities;

(b) there is no grade of senior lecturer;

(c) as a corollary to (b), the lecturers' scale rises to £2,760, three increments above the national maximum of £2,505;

(d) the lecturers' scale is a rigid age-wage scale;

(e) any university post save that of professor may be held together with a paid college post, and that there are a considerable number of part-time university posts which are tenable only by those who also hold a paid college post;

(f) there is no grade of assistant lecturer (the grade of departmental demonstrator is analogous to it; but it exists only in the science faculties; and the number of full-time departmental demonstrators is small);

(g) some members of the academic staff are employed only by the colleges and hold no university post.

Academic salaries in perspective

Discussion of a general level of salaries implies, however misleadingly, the notion of a typical academic. This fabricated creature emerged at the end of the last chapter as a scientist aged 38, married with two children and holding a lecturership at a major redbrick university. He is at the top, or near the top, of the lecturer grade and, as we shall see in Chapter V, is a candidate for promotion to one of the senior posts--a chair, a readership or a senior lecturership. His salary in 1966 was £2,600 per annum together with something like £75 for extra-mural earnings and an allowance of £100 for his children. He is therefore comfortably inside the top ten per cent of earners, a secure member of the British middle classes. Disregarding the 'extras', he gets more than twice as much as the British workman and, on his own collective say-so, works a 40 1/2 hour week (during term) compared with the average man (a manual worker) in manufacturing industry who puts in 44.2 hours.

The salaries of academics were surveyed in 1964/65 by the Association of University Teachers with results which are shown in Table 2.3 (on the following page). The average salary in that year (excluding Oxford and Cambridge) was £2,368 per annum.

The comparable figures for Oxford which come from the Franks Commission are shown (below) in Table 2.4. At Oxford the mean salary was £2,575 but if payments for examining, piece-rate teaching and university and college offices are included the mean total emoluments were £2,865.

Table 2.4 Estimated Earnings of Oxford Staff (excluding those on clinical scales)

Age	Number	Mean Total Salary	Mean Regular Emoluments	Mean Total Emoluments
		£	£	£
Under 30	164	1231	1345	1450
30-34	160	1939	2132	2235
35-39	170	2500	2691	2853
40-44	180	2949	3140	3283
45-49	111	3109	3308	3445
50 and over	285	3308	3460	3551
All	1070	2575	2745	2865

NOTE: The Gazette lists (i) "total salary" of the staff comprising University stipend, College Fellowship stipend, and College Lectureship stipend or retaining fee; (ii) "regular emoluments" comprising total salary plus supervision and other teaching fees from the University, College housing benefits and other College benefits; (iii) "total emoluments" comprising regular emoluments plus income from University examining, University Offices, College Offices and College piece-rate teaching. The figures under "mean regular emoluments" are in fair agreement with the figures obtained from the AUT Survey

Table 2.3 University Teachers 1964/65: Average Salary at Each Year of Age

Age as at 1 Oct, 1964	Arts	Science	Tech-nology	All Non-med.	Med-ical	All	(All) (1962
	£	£	£	£	£	£	£
20	1,050			1,050		1,050	(800)
21	1,075	1,050	1,050	1,067	1,125	1,072	(900)
22	1,147	1,087	1,051	1,114	1,137	1,116	(848)
23	1,169	1,102	1,098	1,143	1,069	1,139	(853)
24	1,148	1,122	1,163	1,142	1,277	1,152	(871)
25	1,197	1,204	1,223	1,203	1,334	1,217	(911)
26	1,254	1,323	1,352	1,294	1,388	1,305	(967)
27	1,366	1,421	1,432	1,398	1,449	1,404	(1,039)
28	1,423	1,502	1,620	1,492	1,561	1,503	(1,109)
29	1,516	1,609	1,702	1,593	1,688	1,604	(1,170)
30	1,619	1,682	1,774	1,680	1,790	1,696	(1,225)
31	1,642	1,826	1,974	1,784	1,886	1,803	(1,335)
32	1,763	1,893	2,079	1,884	2,092	1,916	(1,396)
33	1,830	2,033	2,088	1,966	2,086	1,993	(1,509)
34	1,933	2,200	2,167	2,077	2,333	2,125	(1,596)
35	2,078	2,229	2,269	2,186	2,352	2,222	(1,671)
36	2,225	2,393	2,472	2,344	2,478	2,376	(1,760)
37	2,393	2,545	2,490	2,468	2,603	2,489	(1,806)
38	2,493	2,679	2,591	2,581	2,805	2,631	(1,884)
39	2,548	2,803	2,657	2,662	2,991	2,721	(1,984)
40	2,635	2,883	2,802	2,751	3,004	2,802	(2,013)
41	2,572	2,999	2,847	2,788	3,005	2,827	(2,136)
42	2,777	2,969	2,910	2,859	3,205	2,935	(2,143)
43	2,737	3,099	2,931	2,891	3,297	2,967	(2,141)
44	2,900	3,051	2,947	2,951	3,195	2,992	(2,196)
45	2,997	3,128	2,976	3,031	3,359	3,107	(2,285)
46	2,893	2,987	3,030	2,949	3,390	3,034	(2,313)
47	2,897	3,236	3,202	3,048	3,376	3,133	(2,350)
48	3,071	3,124	3,045	3,078	3,577	3,206	(2,428)
49	3,041	3,323	3,074	3,116	3,545	3,204	(2,531)
50	3,101	2,868	2,980	3,036	3,512	3,127	(2,507)
51	3,110	3,323	3,208	3,177	3,583	3,249	(2,524)
52	3,175	3,477	3,638	3,312	3,965	3,426	(2,619)
53	3,297	3,419	3,392	3,355	4,084	3,575	(2,551)
54	3,386	3,755	3,192	3,405	3,457	3,412	(2,632)
55	3,368	3,427	3,217	3,351	3,912	3,430	(2,582)
56	3,325	3,471	3,904	3,458	3,653	3,496	(2,566)
57	3,531	3,352	3,380	3,452	4,178	3,599	(2,596)
58	3,451	3,548	3,435	3,478	3,722	3,531	(2,618)
59	3,461	3,762	3,337	3,508	4,073	3,598	(2,577)
60	3,379	3,691	3,242	3,464	3,784	3,500	(2,612)
61	3,113	3,426	3,497	3,291	3,994	3,437	(2,700)
62	3,316	3,184	3,412	3,308	4,574	3,547	(2,695)
63	3,827	3,854	3,494	3,743	4,170	3,802	(2,740)
64	3,257	3,693	3,172	3,315	3,665	3,360	(2,578)
65	3,725	3,825	3,793	3,750	4,076	3,812	(2,711)
66 and over	3,766	3,767	3,624	3,744	3,981	3,776	(2,526)
All Ages	2,275	2,249	2,425	2,299	2,691	2,368	(1,810)

(Figures in brackets refer to 1962 Survey)

Source: The Remuneration of University Teachers 1964/65 A.U.T.

Comparison with the pay and hours of the British worker plainly establishes the material position of the don as high in one of the richest countries in the world. Dons, of course, do not normally compare their lot with that of the 'bus driver or, far less, the Indian peasant. If they did they might be alarmed to notice a deterioration of relative advantage over the past generation which can be derived from the general proposition that the position of a professor in the scale of income is inversely proportional to the wealth of his nation (to which, ironically, education is commonly held to be a major modern contributor). "Thus a university professor in India, with an annual salary of, say, seven to eight thousand rupees is receiving an income which is in absolute terms much lower than the seven to eight thousand dollars received by the university professor in the United States. But since per worker income in India is not much more than 100 rupees, the Indian professor's salary is from seven to eight times the countrywide average; whereas with per worker income in the United States close to 5,000 dollars, the professor's salary in that country is less than twice the countrywide average."(3) The position of the British university teacher is intermediate in international comparisons of this type. He has more than twice the national average income but absolutely much more than his Indian and less than his American colleague. The average salary for British university teachers in 1956/57 was £1,323 per annum compared with £648 for adult male workers in manufacturing industry. The average academic salary in ten major American universities in 1955 among associate professors was $6,500.(4) Though in absolute terms more than one and a half times as much as that of the British academic, at the same time this American academic stipend compared unfavorably with the incomes of American railroad engineers and firemen.(5) On the basis of the comparisons over time which are shown in Table 2.5 (on the following page) it can be seen that the position of academic salaries in Britain relative to national earnings has deteriorated since before the war--i.e., it has moved away from the 'Indian' towards the "American" position. In 1928/29 the academic was four times better off than the average: he is now no more than twice as well off.

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(3) S. Kuznets Six Lectures on Economic Growth, Free Press, 1959, p. 65. The figures refer to the mid-fifties.

(4) T. Caplow & R.C. McGree The Academic Market Place Basic Books 1958, p. 99.

In the case of the professors this trend has meant a reduction from nearly eight times the average income before the First World War to three and a half times in the 1950's. For the assistant lecturer the same trend brought him, in the 1950's, to an absolutely lower annual income than the average manual worker from being twice as highly paid in 1910. Thus the assistant lectureship is an example of one of the middle class occupations which, in the general "concertina" effect of income differentials, compares unfavorably with many manual jobs. It is important to remember however that these comparisons are between annual and not life earnings. The assistant lecturer is on three years probation to a profession in which his salary will rise until it at least doubles itself in the next 13 years and will most probably rise still further by promotion to senior rank. The average manual worker, meanwhile, is already at peak earnings.

However the normal reference group for the university teacher is either the administrative civil servant or the industrial manager or scientist. In recent salary claims the Association of University Teachers has used these two reference groups explicitly in application of their doctrine of "fair comparison." The industrial comparison is held to be between professors and higher

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(5) Ibid. p. 23.

Table 2.5 Average Salaries of Principal Grades of Academic Staff 1910-1957

	1910-11*	1928-29**	1938-39	1951-52	1956-57
	£	£	£	£	£
Professor	600	1,082	1,115	2,041	2,303
Reader Assistant Professor Independent Lecturer	250	632	671	1,468	1,760
Senior Lecturer	250	632	477	1,380	1,653
Lecturer	250	461	477	863	1,061
Assistant Lecturer	150	311	313	533	600
Others		354			
All University Teachers (A) Average Earnings		584	612	1,091	1,323
Average Earnings in *** Manufacturing Industries (B)	78	156	184	455	648
$\frac{(A)}{(B)}$		3.7	3.3	2.4	2.0

Notes. Oxford and Cambridge Staff other than Professors and Readers are excluded throughout.

*Rough estimate from Board of Education Reports for 1910-11 from Universities and University Colleges in receipt of grant. Cd. 6245.

**1928-29 figures exclude the university colleges (Nottingham, Southampton and Exeter) which had lower scales.

***Calculated from average weekly earnings from London & Cambridge Economic Bulletin--The British Economy Key Statistics 1900-1964, London & Cambridge Economic Service, 1966, and from A.L. Bowley, Wages and Income in the United Kingdom Since 1860, C.U.P. 1937.

business management; between senior lecturers, readers and lecturers and senior and middle management; and between assistant lecturers and junior management. In the case of the Civil Service the comparison again is between professors in the universities and deputy secretaries and under-secretaries in Whitehall; between readers and senior lecturers and assistant secretaries; and between lecturers and principals. Thus in the early summer of 1962 the A.U.T. claimed that university salaries were about 25 per cent below these comparable jobs in industry and the civil service and it was on this sort of comparison that they made their case to the National Incomes Commission. The National Incomes Commission for its part rejected the comparisons made by the Association. They argued that "university teaching is a single and unified profession. It is incapable of comparison in terms of functional content with any other calling."(6) though they clearly had competition from the civil service and industry in mind in fixing the new scale of salaries. They took the view that over the years there had been a decline in the position occupied by university salaries in the "overall pattern of relativities." The salary scales recommended by them were based on the view that "the expansion of the universities does not and should not require, so far as recruitment and retention of staff are concerned, that they should be put in a prominent position in relation to their competitors. Equally they should not be asked to enter the critical period immediately in front of them from a position of relative disadvantage: or, to put this aspect of the matter in more positive form, they should be enabled to face the strains and difficulties of the next few years with a feeling of confidence that they have been treated fairly. "Fairly" in this context means that they stand on a competitive footing with other services and occupations seeking the best academic talent, and that if the community calls for expansion it will not attempt to secure it by taking advantage of established loyalties."(7) The argument over the meaning of job comparability will doubtless continue. Meantime, whatever the technicalities of salary negotiation may be, it is clear that the middle class careers of administrators and scientists in industry and the civil service are the implicit reference groups to which academic salaries are related by all the interested parties.

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(6) N.I.C. Report, p. 26, para. 79.

The academic marketplace

The most obvious feature of British academic salaries is what they are not. They are not the outcome of an individual competitive market of buyers and sellers. On the contrary they reflect primarily a unified profession organized as a national bureaucracy. Perhaps not quite a unified profession for there are medical differentials and perhaps not quite a national bureaucracy while Oxford and Cambridge are not wholly assimilated to it. Nevertheless the system differs fundamentally from a perfectly competitive market: on the demand side it is arguable that, though there are 76 colleges(8) there is only one buyer; and on both the demand and supply sides there is a strongly and widely held conception of university teaching as a single vocation.

The essential fact is that academic salaries are now fixed by the Chancellor of the Exchequor. That this fact is qualified by the limited power of universities to vary the conditions of individual members of their staff is less significant than the trend away from university autonomy which has appeared with the expansion of higher education in this century. In the early years of the modern universities autonomy in the fixing of salaries (and tenure) was assumed, and it is noticeable that this went along with a frank employer/employee relationship between the civic universities and their professors.(9) There was little uniformity of staff structure and salary levels were roughly correlated with the size of endowments. From its formation after the First War until the end of the Second War the U.G.C. largely confined itself to advocating general rises in the level of academic salaries lest quality should be impaired and dons prevented from "pursuing their intellectual ideal under conditions which do not make this impossible of attainment." These conditions were thought of as "the prospect of marrying and maintaining himself and his family in such material comforts as are enjoyed by moderately successful members of other learned professions, and of providing satisfactorily for the education of his children."(10) But the U.G.C. certainly never advocated standardization of academic salaries. Thus in 1930 they were insisting on the opinion "which we have expressed on previous occasions, adverse to any general scheme applicable to all university institutions and providing for uniform fixed salary scales with automatic increments. Each university or college must be free to decide for itself what is best suited to its own needs and resources and it is not only natural but desirable that the size, wealth and standing of different institutions should be reflected in differences of salary."(11)

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(7) N.I.C. Report, p. 20, para. 63.

(8) Counting CAT's and the individual colleges of the Universities of London and Wales.

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(9) Sir Eric Ashby and Mary Anderson, "Autonomy and Academic Freedom in Britain and in English Speaking Countries of Tropical Africa," Minerva, Vol. 4, No. 3, Spring 1966, p. 325.

"The original pattern was very simple, higher education in the industrial cities of Victorian England began as private enterprise, financed by a joint stock company, as was University College, London; or by individual benefactors, as were Owens College, Manchester and Mason College, Birmingham; or by groups of citizens, as were the colleges in Leeds and Liverpool. The trustees for the endowments and subscriptions acted as governing bodies; they began by regarding the professors as employees and they considered it as part of their duty as trustees to decide policy in the colleges they governed."

(10) U.G.C. Report, 1928-29, H.M.S.O., 1930, p. 23. "We are convinced," said the U.G.C., "that it would be a national calamity if university teachers became a preponderantly celibate profession."

And they were. In the year before this expression of U.G.C. opinion, the British university professors were scattered over a range of salaries as great proportionately as that which now covers the great majority of all university teachers. Of the 747 professors 14 had stipends of £700 per annum or less and 12 received £2,000 per annum. The range among readers and assistant professors was from £350 to £1,100 and among lecturers from £250 and £1,000.

Within twenty years both the facts and U.G.C. opinion had been transformed. The universities could not expand to meet the growing demand either for graduates or for research without increased financial aid from the State. Before the war about a third of university income came from government grants (£2.4 million in 1938-39). By the 1960's the proportion was over two thirds (£52.2 million in 1961-62) and in the meantime total university incomes multiplied more than twelve times from £6 million to £75 million a year.(12) Since over 40 per cent of the income of the universities is spent on academic salaries it can be no surprise to find that governmental control has penetrated into what was once an autonomous sphere of university government.

Two particular circumstances led up to formal intervention by the Treasury through the U.G.C. There was a sharp increase in the cost of living at the end of the war and the poorer universities were unable to raise salaries sufficiently without government help. Matters came to a head in 1946. Knowing that there was no uniformity in the proposals of different universities and that government grants would be necessary, the U.G.C. consulted with the

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(11) Ibid., p. 29.

(12) These figures do not include non-recurrent capital grants.

Treasury and laid down a standard rate of professorial salary. The universities were left to decide for themselves on the salary scales of non-professorial staff in relation to the standard professorial rate. There was no public battle. The strength of the forces involved was effectively illustrated by firm suppression of the only rebel--the University of Cambridge, which proposed to raise its standard professorial rate to £250 per annum above the national level. The U.G.C. informed Cambridge that it had "...raised an issue of utmost gravity which affects not Cambridge alone, but all the university institutions which participate in the Exchequor grant. Both the committee and, as they believe, the Treasury are anxious to maintain the principle of academic autonomy to the fullest possible extent, and it is with that object in view that the present system of administering the general recurrent grant has been devised. But that system can only be maintained on the footing that the recipients of the grants can be relied upon to respect the express views of the government on a matter which passes the bounds of purely academic concern. There is no doubt in the minds of the committee that the fixing of standards of academic remuneration must be regarded as such a matter...there can, in the judgement of the committee, be no justification for the utilisation by a university of the largely increased Exchequor grant for the purpose of raising salaries beyond the level which the Treasury are prepared to subsidise."(13) There has been no recurrence of rebellion since that time.

This is not to say, however, that university autonomy (or far less academic freedom, which we will discuss in Chapter VII) is undermined by governmental control of the salary framework. The vital questions of who is appointed or promoted and to do what are completely in the hands of individual universities.

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(13) U.G.C. University Development 1957-62, Cmnd. 2267, p. 137.

The concept of the academic profession as a unitary guild also restricts the operation of market forces and especially the effects of neighboring markets for educated or professional men outside the universities where job comparability might lead to differentiation between faculties in favor of, for example, applied scientists. Before making its recommendations for academic salaries the N.I.C. took evidence from the Treasury, the U.G.C., the Committee or Vice-Chancellors, the A.U.T. and a number of sectional interests among university teachers including the B.M.A., the Royal Veterinary College, the Royal Society and the Society of Public Teachers of Law. In its written evidence the Treasury referred to "the tradition of the unity of the academic profession" and the N.I.C. reported "that eventually none of those whom we questioned in oral evidence really pressed for an extension of the system of differentials by faculties or subjects beyond the present scope of the medical teachers. Those of them who, at first sight, might appear to have been proposing further differentials by faculties and subjects, and in particular the Council of the Royal Society, were in fact asking for further flexibility within salary scales, not confined to any faculty or subject, to overcome difficulties of recruiting and retaining university teachers wherever and whenever such difficulties occur."(14)

The A.U.T. is the main organized expression from within of the unity of the profession. Some 60 per cent of the British University Teachers (10,000 in 1965) belong to the A.U.T. Membership is less strong in the ancient universities and the higher ranks but, apart from the Universitas Belgica, the A.U.T. is probably the strongest and most prestigious national association of academics of its kind.

The tension between gentlemanly conceptions of a learned body of academics and the pressure towards organized adaptation to the emerging national system of higher education is evident at every point in the history of the A.U.T.--in its origins, preoccupations and activities. It is and it is not a Trade Union just as the Committee of Vice-Chancellors and Principals and the U.G.C., which was also formed immediately after the First War, are and are not Employers' Associations.

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(14) N.I.C. Report, p. 42, para. 127.

The formation of the A.U.T. represented the first victory of unity over sectional interests despite its origins before the First War in sectional discontent among the non-professorial staff of the new civic universities led by Manchester men like J.S.B. Stopford and J.E. Myers. When the Victorian universities were founded the staff were the professors aided by assistants who were always poorly paid and often employed on an ad hoc basis by the professors themselves. "By the first World War the Universities and colleges were still tiny by modern standards--the non-professorial staff of fifteen of them in 1917-18 averaged only 22 members, while Manchester with 48 (excluding demonstrators etc.) was one of the largest--but the assistants now outnumbered the professors and did a large part of the work. Meanwhile their status remained low, there was no uniform system of grading to distinguish those with high academic attainments or long experience and their salaries were exiguous."(15)

The First War had cut short negotiations with Council at Manchester on behalf of the assistants. There was a conference of university lecturers at Liverpool in December 1917 which decided to appeal directly to the Board of Education to provide money for increased salaries and improved superannuation. The conference adopted the provisional title of an Association of University Lecturers. But unity was advocated by the Manchester delegates--they wanted to act only in concert with the university Senates and Councils. The

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(15) Harold Perkin, "Manchester and the Origins of the A.U.T.," British Universities Annual 1964, pp. 88-91. "The average for 330 lecturers in 15 institutions in 1918 was £206."

Manchester view, helped perhaps by the decision of H.A.L. Fisher at the Board of Education to see a Deputation of Governing Bodies rather than a sectional "Deputation from the Assistant Lecturers," finally prevailed in 1919. The non-professorial delegates to a joint conference on superannuation held at Sheffield reported back to their Senate at Manchester: "We are convinced that further opposition on our part to the formation of an association will have the effect of giving the association which will be formed a sectional and partisan character. On the other hand we are of opinion that a wide association, open to all members of University staffs, might prove to be of great value as a medium of intercourse and for the more effective formulation of general university ideals. We therefore appeal for the approval of the Senate to the foundation and trial of such an association."(16) The A.U.T. was formed nationally later that year. A parallel Scottish association was formed in 1922 and the two organizations formed a single union in 1949.(17)

Too much, however, must not be made of the principle of guild unity. The sectional interests exist; and though only medical trade unionism, taking the opportunity of the creation of the National Health Services, has been strong enough to get and keep formal differentials, claims for special treatment are advanced by nearly all faculties except arts and may be largely mutually cancelling. Moreover, though N.I.C. endorsed the sentiment of unity and reduced the extent of medical differentials it made its recommendations more on grounds of practicality than of principle. Differentials applied to categories of academics cannot work. "Within any faculty or department, be it one of science, technology or arts...it would not be possible to match outside market values by a university salary scale applying to the faculty or department. At the end of the day it comes down to individual subjects and that very often means individual men...and individual men cannot be graded or classified according to arts or science or technology."(18) Furthermore if guild unity restricts market forces so too, in a different way, does the formal differential by creating a vested interest irrespective of subsequent changes in market conditions.

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(16) Ibid., p. 90

(17) T.R. Bolam, The Scottish Association of University Teachers, British Universities Annual 1964, pp. 77-87.

What happens in practice, and what gives substance to university autonomy and at the same time permits some adjustment to the play of the market on a heterogeneous profession, is that universities take advantage of the flexibilities contained in the scales for non-professorial grades and the provision for professorial spread. Some latitude is possible in the point of seniority at which appointments are made: promotion is possible from grade to grade within the limits of the ratio laid down of senior to junior non-professorial posts; acceleration of salary increase is possible within grades by "merit increments" and the professorial spread is used in part to shield the universities against outside competition. The result is that faculty differentials exist in practice but in a form which is both flexible and consistent with the unity principle. The extent of these differences is shown in Table 2.6 (on the following page) for October 1961. The figures come from an A.U.T. survey and exclude Oxford and Cambridge. Because of the formal differential, salaries are higher in medical than in non-medical faculties. The higher the age the greater the difference until, among those over 45, one medical man measured by salary is equal to a non-medical colleague plus an assistant lecturer. Salary differences among the non-medical faculties are relatively smaller, the main feature being that scientists and applied scientists under 50 earn more than arts men. These differences presumably reflect the "flexibility" of merit increments and early promotion to the senior ranks.

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(18) *Ibid.*, p. 46, para. 128.

Table 2.6 Average (median) Salaries of University Teachers: by Age and Faculty U.K. (excluding Oxford and Cambridge) October 1961

Age	Arts	Science	Applied Science	Medical subjects	All Non-Medical Teachers	All Teachers
66 and over	2,500	2,425	2,450	3,500	2,450	2,500
61-65	2,800	2,400	2,600	3,600	2,450	2,550
56-60	2,400	2,425	2,425	3,500	2,425	2,450
51-55	2,425	2,425	2,425	3,300	2,425	2,475
46-50	2,075	2,325	2,350	3,200	2,200	2,325
41-45	1,850	1,950	1,925	2,525	1,850	1,950
36-40	1,625	1,825	1,850	2,200	1,725	1,800
31-35	1,300	1,450	1,525	1,700	1,400	1,450
26-30	1,050	1,100	1,200	1,150	1,100	1,100
Under 26	850	850	900	950	850	850

Source: A.U.T. Survey

Note: A subsequent survey by the A.U.T. in 1964/65 showed that the increased rate of expansion is reflected in a greater proportion of younger staff than in 1962--the biggest increase in the groups under 30 years of age being in arts. The over-40s account for almost the same proportions as they did in 1962 so there has been a relative decline in the numbers between age 30 and 40. Just under 65% of all university teachers are 40 years old or younger.

Apart from salary differences, supplementary earnings must also be taken into account. On the whole these tend to reflect opportunities for careers outside the universities and are to that extent a substitute for salary differentials. For the median man they do not amount to much because they are only high for a small minority. The chief beneficiaries are the applied scientists and the social scientists as may be seen from Table 2.7 (on the following page) which is taken from the N.I.C. Report.

Table 2.7 Average Supplementary Earnings of University Teachers by Grade and Faculty

Faculty	Arts		Social Studies		Pure Science		Applied Science		Medical & Dental Pre-Clinical		Medical Clinical*		Dental Clinical*		Agriculture and Forestry		Veterinary Science		All Faculties	
Grade	A M	M	A M	M	A M	M	A M	M	A M	M	A M	M	A M	M	A M	M	A M	M	A M	M
Professor	255	170	624	379	501	312	774	530	471	300	394	233	249	192	258	200	177	138	432	250
Reader	238	140	349	229	222	97	389	186	152	81	152	70	282	75	169	100	95	75	237	123
Senior Lecturer	146	97	186	131	110	54	212	146	103	36	78	22	71	9	51	20	114	21	126	61
Lecturer	135	66	203	101	116	38	113	41	50	9	47	10	16	0	77	17	82	11	116	40
Assistant Lecturer	70	22	104	80	37	8	86	3	21	5	27	0	-	-	23	0	6	0	50	11
Other Grades	254	135	162	97	118	16	72	19	46	0	38	5	-	-	95	14	9	6	159	51
All Grades	169	88	263	132	159	50	210	74	116	22	144	35	107	18	86	19	89	16	168	62

* N.H.S. distinction awards are not included in these figures.

Key to columns:

A M = Arithmetic Mean

M = Median

Table 2.8 Median Supplementary Earnings of University Teachers by Grade and University Group, £

University Group / Grade	Oxford	Cambridge	London	Scotland	Wales	Large* Civic	Small* Civic	All Groups
Professor	355	365	319	229	135	230	203	250
Reader	209	245	127	83	35	75	39	123
Senior Lecturer	-	-	40	50	58	60	65	61
Lecturer	91	276	45	16	24	28	35	40
Assistant Lecturer	10	104	8	1	0	3	10	11
Other Grades	149	80	0	0	0	4	15	50
All Grades	145	211	79	27	35	42	50	62

*Large and Small Civic Universities are classified as follows:

Large: Birmingham University, Bristol University, Newcastle-upon-Tyne, Leeds University, Liverpool University, Manchester University, Manchester College of Science and Technology, Nottingham University, Sheffield University, Southampton University;

Small: Durham Colleges, Exeter University, Hull University, Keele University, Leicester University, Reading University, Sussex University.

The Oxford differential

To complete the picture of variation we must look at Oxford and Cambridge. In Table 2.8 (see page II-23) the N.I.C. Survey results show that Oxford and Cambridge dons earn more in the way of supplementary earnings than do their colleagues elsewhere. But this is neither the whole nor the beginning of the story. A minor controversy was generated by the following remarks of the Robbins Committe in 1963, "Since the Oxford and Cambridge colleges do not make detailed returns of their outlays, it is extraordinarily difficult to estimate the moluments of college fellows and teachers, and we have not conceived it to be our business to make a special inquiry into the matter. But the Evidence in Appendix III suggests that there is substance in the assertion that in one, at any rate, of these universities teachers of a given seniority receive higher emoluments than their colleagues elsewhere and that there is also a higher proportion of senior posts. We believe any such disparity between the incomes and prospects of persons doing similar work in different universities, which are all in receipt of public funds, to be unjust; and we consider its defects to be harmful. By adding financial attraction to the already great attractiveness of Oxford and Cambridge it leads to too great a concentration of talent there and it militates against desirable movement between universities."(19)

The Robbins Committee was aware that the National Incomes Commission was considering the university salaries and left the problem with the remark that "if it is established that there are serious anomalies, these should be removed." The N.I.C. refused to be drawn into the larger issues but drew some conclusions from its own inquiries. As far as full-time university teachers at the universities of Oxford and Cambridge were concerned, the N.I.C. took the view that, taking account of the difference in staff structure which distinguishes a collegiate university from the unitary structure of other universities, neither at Oxford nor at Cambridge could the rates of salary be regarded as anything but a reasonable adaptation of the approved rates. On the other hand the question of college emoluments baffled them. Earnings at Oxford and Cambridge among college men are inextricably bound up with teaching methods and the Commission had insufficient evidence on which to base any recommendations. They took the view "that it is for each university authority to control and to set such limits as it thinks fit to external activities to prevent these activities from encroaching on academic duties. We think that the same principles should be applied by the universities of Oxford and Cambridge in relation to work done for colleges by the holders of university appointments."(20)

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(19) Robbins Report, Para. 542. These remarks may be contrasted with the quoted opinion of the U.G.C. in 1930.

The representatives of both Oxford and Cambridge assured N.I.C. that college teaching is done without any reduction in the work which the teacher is required to do in respect of his university office; that those who do it carry a heavier load than those who do not; that sometimes it is undertaken at the sacrifice of alternatives personally more advantageous and that the remuneration for it is always paid on the footing that the work and duties involved are external to the demands of a full-time university appointment. Spokesmen for the A.U.T. agreed that there is often an overtime element in Oxford and Cambridge tutorial work which ought to be recognized by extra pay. But, they added, "that there was a certain amount of 'mythology' attached to the matter; that if extra payment were not made for college supervision the work would get done in the same way as it gets done in other universities, namely as part of the job; and that if lecture and supervision loads were added to tutorial loads the differences between Oxford and Cambridge and other universities were perhaps rather less striking than had been suggested."(21)

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(20) N.I.C. Report, p. 87, para. 262.

The discussion was taken further by the Franks Commission on Oxford which collected full information on salaries and earnings of Oxford dons(22) in 1964-65. The Commission calculated that the average salary in Oxford (including both university and college stipends) was about 15 per cent above the national average(23) but allowing for the fact that Oxford dons are, on average, considerably older than their colleagues elsewhere,(24) recalculation gave an Oxford advantage of only four per cent over the national average. This, the Commission thought, was too low. They then went on to consider the other emoluments which are a frequent target of criticism, especially since the publication of the Robbins Report. These emoluments include payments for tutorial work in the colleges and supervision of graduate students in the university. All of the latter and that part of the former which involves teaching members of other colleges is paid at piece-rates. Colleges also provide fellows with various fringe benefits such as housing allowances, the purchase of private medicine through BUPA, meals and entertainment allowances. The total bill for these emoluments in 1964-65 was £360,000. Adding these extras the Oxford average salary is 18 per cent above the national figure. No doubt some equivalent payments are made elsewhere, but the Commission concluded that the Oxford advantage was nearer to the upper (18 per cent) than to the lower (4 per cent) limit. The Franks Commission proposed the abolition of piece-rate teaching and the reduction and rationalization of fringe benefits. At the same time, however, they recommended, presumably to the U.G.C., that Oxford salaries, age for age, should be 10 per cent higher than the average for all British universities. This figure of 10 per cent is arbitrary--a guess by the Commissioners as to what was likely to be politically viable. Some, following the mood of the authors of the Robbins Report, reject the claim as an affront to the principle of guild unity which would proscribe unequal pay for equal work. Lord Franks and his colleagues justify their proposal on the grounds of Oxford's status as an international university of the first rank. Others for both this reason and because of the higher qualifications, longer hours and higher quality of Oxford teaching argue that the differential represents unequal pay for unequal work. The fate of the Franks proposals is not yet settled (1966). Meanwhile the Oxford and Cambridge differential continues to exist mainly in the complications and partial obscurity of the collegiate organization of the ancient universities.

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(21) Ibid., p. 89, para. 265.

(22) Full details are in the Oxford University Gazette, Vol. XCV, p. 1077, and in the University of Oxford Report of the Commission of Inquiry Vol. II, tables 334-351.

(23) Clinical medical staff are left out of this calculation.

(24) This is partly because other universities are expanding and appointing younger people but also because of the different staff structure. The college fellow in arts, usually with a part-time university (C.U.F.) lectureship, has no equivalent elsewhere except at Cambridge. His post is not equivalent to a lectureship but is thought of as a permanent career of sufficient attractiveness, at least in some colleges, to retain some highly distinguished scholars. College dons often leave to take chairs in the modern universities. But it is not uncommon for the reverse to take place.

Salary negotiation

Outside the Oxford and Cambridge colleges salaries are negotiated at two levels: the scales nationally and individual positions locally. We have already described how nineteenth century autonomy and therefore variation in salaries between universities was gradually modified during the twentieth century by increasing reliance on state finance until, in 1949, the U.G.C. set a standard professorial rate. Before that time the A.U.T. had no recognized position in the determination of salary scales, though the U.G.C. received deputations and memoranda from, and occasionally held discussions with representatives of, the Association. After 1949 the A.U.T. pressed repeatedly for the establishment of a clear system of negotiation, but so far it has not succeeded.

The course of events again illustrate the peculiar organization of university teachers as neither a self-governing guild nor a trade union, neither self employed nor employees. As the then Mr. Butler, Chancellor of the Exchequer, put it in 1959, "...the relationship between the governing bodies and academic staffs of the universities is in important respects different from that between employers and employees. This relationship is unique and I should be sorry to see any attempt to change it. Its effect is to make inappropriate the development of negotiating machinery of the normal type."(25)

Butler's view was that of Whitehall and the U.G.C. It was based on two arguments. First there was no clearly defined employer/employee relationship. Neither the Treasury nor the U.G.C. nor the Committee of Vice-Chancellors and Principals were employers. Nor were the University Teachers employees: they were members of a society called a university and therefore determined corporately their individual pay and conditions of service. Second, there should be no direct negotiation along employer/employee lines because this would destroy university autonomy, impose rigid salary scales and establishments and result in detailed governmental scrutiny of university accounts.

On a strict interpretation of this view there is no justification for the existence of the A.U.T. The university is the collective organization of the academics and as such it needs no further organization as a trade union. However, the fact of the existence of the A.U.T. has come to carry greater weight than the logic of a guild conception of the universities and after 1949 the U.G.C. recognized "a growing feeling that the views of the Association should be taken into consideration when the basic salary framework was being revised." Since 1954 the Association along with the Committee of Vice-Chancellors and Principals has been given formal right of approach to the U.G.C. on questions of changing the basic salary framework. Though this by no means amounts to recognition of the A.U.T. as a negotiating body (and ominously the sectional interests of the B.M.A. are also recognized) it none the less is a first step, and it was formalized in 1960 into a procedure for salary discussions which was described by the U.G.C. as follows:

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(25) Quoted in U.G.C. University Development 1957-62, H.M.S.O. 1964, Cmnd. 267, p. 141.

> "(1) Upon the initiation of a salaries review the Association of University Teachers will begin the preparation of detailed salary proposals. While the A.U.T. is preparing proposals,
>
> (a) there will be consultations between the Vice-Chancellors' Committee and the University Grants Committee about the general considerations involved;
>
> (b) the Committee of Vice-Chancellors and Principals will make themselves freely available to the Association's Executive for confidential consultation, exchange of views and the provision of such background information as they can supply, including some indication of the extent to which they are able to support the Association's proposals.
>
> (2) The Association will complete their proposals and formally submit them to our Committee in writing.
>
> (3) The Committee of Vice-Chancellors and Principals will be asked to advise us on the basic salary framework and will discuss this with us.
>
> (4) We will meet representatives of the Association to discuss their proposals and any major points of difference or difficulty. We will not disclose the source of these major points, i.e., whether they came originally from the Vice-Chancellors' Committee or from ourselves. These major points of difference or difficulty, together with such evidence as is available, will be made known to the Association's representatives in advance of discussion.

> (5) We will, if necessary, arrange a further meeting with the Committee of Vice-Chancellors and Principals before making our submission to the Chancellor of the Exchequer, and if some fresh consideration should have arisen after our meeting with representatives of the Association, we will see their representatives a second time.
>
> (6) After the Chancellor's decision has been taken and made known, we will give to the Committee of Vice-Chancellors and Principals and to the Association the 'considered reply' promised in the then Chancellor's announcement in Parliament on 29th July, 1955. It is understood that in so doing we cannot disclose the advice that we have given to the Chancellor."(26)

The U.G.C. pronounced itself satisfied that "by and large, this procedure seems to have worked well..." The A.U.T. on the other hand remains far from satisfied. It is true that opinion among university teachers has always been in principle in favor of university autonomy and against overt Trade Unionism. And A.U.T. officials often comment wryly on the frequency with which members at local meetings or in the press will deprecate too much discussion of the sordid business of pay or even high mindedly declare themselves and their colleagues to be overpaid.(27) Nevertheless the essential role of the Association has always been to protect the material conditions of its members and to this end it has constantly sought an employer with whom it could establish the right to negotiate. Before 1953 the U.G.C. appeared to the A.U.T. to be taking on, if not the role of employer then at least that of a recognized independent review body in the determination of salary scales. Of course the Government exercized ultimate financial control, but it seemed that U.G.C. recommendations on salaries were more or less automatically accepted. After 1953 however the situation seemed to change: as the position of the U.G.C. weakened the employer became more elusive and decision appeared to be taken behind the scenes in Whitehall. Discontent in A.U.T. circles and among academics generally gradually increased and was partly responsible for the referral of the salaries question to the N.I.C. Commission.

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(26) U.G.C. University Development 1957-62, p. 142.

(27) B.U.A., 1963, p. 89

"Thus in the presidential address for 1963, Professor W.W. Chambers remarked 'as salaries are in question, some of our colleagues are invariably prompted by their conscience of stating with cheerful altruism or moralising stoicism that they feel they are too well paid already'."

The recommendations of the Commission have done nothing to allay A.U.T. discontent which was expressed sharply by Professor Michael Fogarty, the convenor of the Association's Salaries and Grading Committee in the following terms in 1965.

> Behind the scenes; that is the point. Now as before N.I.C., the effective decisions about the terms and conditions of employment of university staff are taken behind closed doors, by ministers and civil servants whom we have no right to meet and who deny (as implicitly the Treasury did to N.I.C.) that their exercise of the power of employers entails accepting the ordinary obligation of an employer to negotiate openly, in good faith, and with the careful preparation which in the Civil Service's own negotiations is taken for granted. The grounds of decision are not revealed in public or to our Association, and do not have to be justified: they cannot be challenged or cross-examined. Those whom we meet in negotiation have no power; those who have power are carefully kept from meeting us. It cannot be said too often that N.I.C. is the one occasion when those who actually determine university salaries have had to appear in public and explain and justify what they have been doing or at any rate to try to justify it, since N.I.C. after all ruled that their view of salary levels fell short of justification by margins of up to twenty per cent. In any negotiation the solution arrived at may deviate from the ideal....
>
> As an Association, we need not much mind what form future salary review procedure takes, so long as those who actually decide university salaries have under it to justify their decision in the first place, in discussion with us, and then, if agreement cannot be reached, before an independent tribunal. After discussion with the Vice-Chancellors and the U.G.C., we put forward a plan by which a panel of the U.G.C. would act as a conciliation commission, bringing the parties--ourselves, the Department of Education and Science, which has the money, and the Vice-Chancellors--together for discussion and trying to secure agreement between them. If agreement was secured, that would be that. If not, the disputed points would go to the Industrial Court. But we would equally accept an independent review body like that for the Higher Civil Service (Franks Committee) or the medical profession (Kindersley Committee), as proposed by the Robbins Commission, provided that the

> procedure brought all parties into the open and permitted discussion and cross-examination between them, and that the review body's decision was formally or by custom final, or, if the Government insisted on challenging it, could be taken to another tribunal for final decision.(28)

It remains to be seen how far these radically different views on the employer (U.G.C.) and employee (A.U.T.) side will affect the further development of machinery for salary determination, especially under the changing circumstances of expansion in both non-university and university forms of higher education and the modification of the role of the Department of Education and Science and the U.G.C. in the management of the system of higher education.

The status of the university teacher

Writing by sociologists about social stratification is so voluminous that laymen may be forgiven for thinking sometimes that sociology is about nothing else. Yet we cannot escape a direct discussion of the status of the university teacher unless we are to ignore an important aspect of our general thesis that the self conception of the academic man is predominantly gentlemenly in tradition and changing, in Britain with more reluctance than rapidity, under modern circumstances. Using the sociologically commonplace distinction between class and status we were, in the last section, looking at an aspect of class, i.e. academic incomes. We saw there that the typical life earnings of university teachers in Britain, in a context of diminishing differentials between professional and manual incomes, remains securely on the comfortable side of middle class privilege. But neither class nor status are completely described or solely determined by income. We shall have more to say about class in later chapters when we deal with academic occupations and careers. Meanwhile, in this section we try to unravel the elements of status in the social position of the university teacher.

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(28) British Universities Annual 1965, A.U.T., pp. 84-86.

Status, as Max Weber distinguished it, refers to "every typical component of the life fate of men that is determined by a specific, positive or negative, social estimation of honour... Status honour is normally expressed by the fact that above all else a specific style of life can be expected from all those who wish to belong to the circle."(29) Thus in describing the status of the university teacher we must first try to identify the general prestige of the academic role as expressed by the typical degree of deference or respect accorded to academics by laymen: and, second, we must describe the content of the particular style of life which is expected of those who belong to the academic community. Neither task is simple. The 'social honour' or prestige of academic life has changed with the expanded functions of universities since the second half of the nineteenth century and, like academic income, it may have undergone relative decline and has certainly become more differentiated. Expansion and specialization have produced status divisions within the academic world and competition between variants of the academic style of life. In England especially there is a characteristic tension between the gentlemanly style with its center in the traditional idealized pattern of life of the Oxford arts don and the newer professional style with technocratic and "classless" overtones which are associated with applied science and redbrick.

Nor do the difficulties end here. Though Weber distinguished between class and status fundamentally on the basis of economic interest as opposed to social honor, the distinction is in fact ambiguous. Although status often takes the form of a claim against market determination of life chances, there is always some transferability of status into market claims, as well as the more obvious long-run dependence of status on successful maintenance of market opportunities. This is especially so in a modern industrial society in which occupational roles are at once the basis for economic interests and the major reference in social evaluation. Certainly life chances are determined by both status and class factors but the process is one of continuous interaction.

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(29) Gerth, H. & Mills, C.W. From Max Weber: Essays in Sociology, Kegan Paul 1947, p. 187.

Weber's definition of class is "the typical chance for a supply of goods, external living conditions and personal life experiences in so far as this chance is determined by the amount and kind of power, or lack of such, to dispose of goods or skills for the sake of income in a given economic order." (p. 181)

Prestige

That the British university teacher enjoys high prestige can be deduced from the high value put upon occupational achievement in industrial countries with their characteristic tendency towards open competition for entry into a hierarchy of professions and trades arranged according to skill and tested by formal qualifications. Thus in occupational prestige scales based on popular surveys(30) the university teacher always appears alongside the major professions in the top-most group. But this is the crudest of truths. It does not identify the special quality of academic as against other professional prestige: it obscures the differences in relative prestige of British compared with, say, German or American academics; and it throws no light on the question of whether, as many fear, academic prestige has declined in this century. To answer such questions it is necessary to take account of the way in which the prestige enjoyed by an occupational group in a particular country at a particular time reflects the outcome of interaction between the class and status factors which have determined its composition, its functions, its autonomy and its remuneration.

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(30) For example the British "Hall-Jones" or the American N.O.R.C. scales which produce remarkably similar rankings in all industrial countries.

Three particular aspects of academic status may be noted which give it a different quality from that of the other professions. First, the academic most directly represents the central criterion of achievement on which accupational prestige is based. Occupational selection in modern society takes place for the most part through educational selection and university teachers are not only themselves selected from those with the highest educational attainments but are also the custodians of the selection process itself. Moreover, as the link between education and occupation tightens in modern society, as education is expanded and qualification to enter an increasingly wide range of employment is formalized, so the teacher generally and the university teacher especially becomes a more significant figure in the evaluations made by individuals of their own worth. In this sense therefore the prestige of the university teacher tends to be strengthened by his increasing role in determining the life chances of others.

This coin however has its other side. The custodian is necessarily set apart from the "real" participants. The university teacher is a somewhat ambiguous figure--one who could have entered the competition for outstanding success in the professions or in industry but has not actually done so. He tends to be seen, as all teachers are seen, as sheltered from the rigors of the real world, as a "theoretical" rather than a practical man, as in some way not a serious man. He is to ordinary men also a vaguely threatening figure, a reproach to the educational failures and intellectual shortcomings of their own youth; one who may be a source of embarrassment because of his knowledge yet one who at the same time has never been put to the harsh test of "doing a real job."

On the other hand the separation from practising professions which modifies academic prestige must be distinguished from the tradition of "apart-ness" which is part of the history of the scholar. In the modern world as knowledge is secular rather than sacred, intellectual institutions open rather than closed, the university teacher has lost his affinity with the priest and become more involved with the world of practical actions. This development has profound implications for the style of life of the university teacher in recent times as well as for his role as a teacher and scholar. His assimilation to the life patterns of professional people in industry and public service has proceeded *pari passu* with the erosion of clearly demarcated functions between universities, government departments, industrial research bodies and other organizations in which intellectual or professional activity is pursued. The significant consequence of these two different trends in the development of the academic role is that of differentiation between the social prestige of research as opposed to teaching and between subjects having a visible utility or relevance to the practical spheres of technology, politics, war or industry as opposed to those subjects which are pursued "for their own sake." Thus the research man tends to have higher prestige outside (as well as inside) the university, and similarly the scientist, technologist, medical professor or economist compared with the historian or linguist. These prestige distinctions in lay opinion are related to but not identical with faculty divisions. In particular some branches of the arts and social studies have become readily marketable in the entertainment industry through television and radio and so confer a popular prestige on a minority of academics in those subjects which is not necessarily related to the scholarly esteem in which the same individuals may be held by their academic colleagues.

The third aspect of academic prestige is its connection with aristocratic and elite status, and this has special significance in Britain because of the unique place held historically by Oxford and Cambridge in the education of the British upper classes and the career connections of Oxford and Cambridge men with the centers of power in Whitehall, the Church, the Courts and the

Boardrooms of major industrial concerns. The British university teacher everywhere carries with him something of the dignity of the gentleman but again this is an important differentiating factor--in this case as between Oxford and Cambridge dons and the academic staff of the modern universities. This distinctive element in the prestige of British academics with its divisive effects within the university system is reinforced in the daily experience of newspaper readers, in the model of educational achievement held up to ambitious schoolboys, in novels about university life, among which those by C.P. Snow are only the most recent of a long-standing genre(31) and in the biographies of eminent persons. The "magic" of Oxford and Cambridge is an essential part of the status symbolism of the British elites.

American academic visitors commonly remark on the relatively higher prestige of university teachers in European countries compared with their own. The legendary respect accorded to the professor in pre-Nazi Germany was only the extreme example of a generally invidious comparison of academic status in the old and the new world. Oxford and Cambridge have long held a position as the symbol of the most desirable social position of the academic man. Abraham Flexner, writing in 1930, offers an eloquent expression of this view: "I as an American profoundly envy them. Only the foreigner who has grown up in the glare and stress of a new world, be it America or Australia, can do full justice to the charm and educative value of the quiet quadrangles, the college libraries, the Bodleian rich in treasures and associations, the fellows' gardens--the strange intermingling of democracy and traditions, of asceticism and dignified luxury. No American or German institution of any kind enjoys, as do Oxford and Cambridge, the inestimable advantage of possessing ample means of associating in worthy scholarly fashion with men of learning and distinction--not only an amenity but a source of profound spiritual stimulus. However modest the means of the Oxford or Cambridge scholar, he can without effort or sacrifice be host to a Minister of State, a great scientist or philosopher."(32)

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(31) See Mortimer R. Proctor The English University Novel, University of California Press, Berkeley and Los Angeles, 1957.

These three aspects of the academic style of life--its competitive achievement, its assimilation to non-academic professionalism and its connection with the leisurely dignity of aristocracy--are changing with the expansion of higher education. In our further analysis we shall explore the extent to which recent developments have led to the differentiation of sub-cultures of the academic style among the different faculties and at different levels in the hierarchy of institutions and career stages.

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(32) Abraham Flexner, Universities: American, English, German, New York, Oxford University Press, 1930.

CHAPTER III

ATTITUDES TOWARD EXPANSION

Our survey, and that of the Robbins Committee, came in the middle of a long and slowly accelerating period of university expansion which can be dated from the end of World War II.(1) The causes and character of that expansion are discussed elsewhere in this volume. In the present chapter we want to raise the question of how the people most directly involved and affected by university expansion, the university teachers, perceived it and felt about it. For while the decisions about the nature and extent of British higher education are made ultimately by the highest political authorities, nevertheless the influence of the academic community on those decisions is very great. It is likely that the Robbins recommendations themselves reflected as well as stimulated a shift in sentiments in the British academic community toward an increasing acceptance of the inevitability and even the desirability of the expansion of the university system. But the question of how widely those sentiments were and are held by British academics, what forms they take, how they differ in different sectors of academia--these questions are not answered in the public debates or in letters to the press. And the answers to those questions--essentially to the question of how English academics see their own institutions and their development or growth--may shed light both on the nature of the academic profession and on the future of the British university system.

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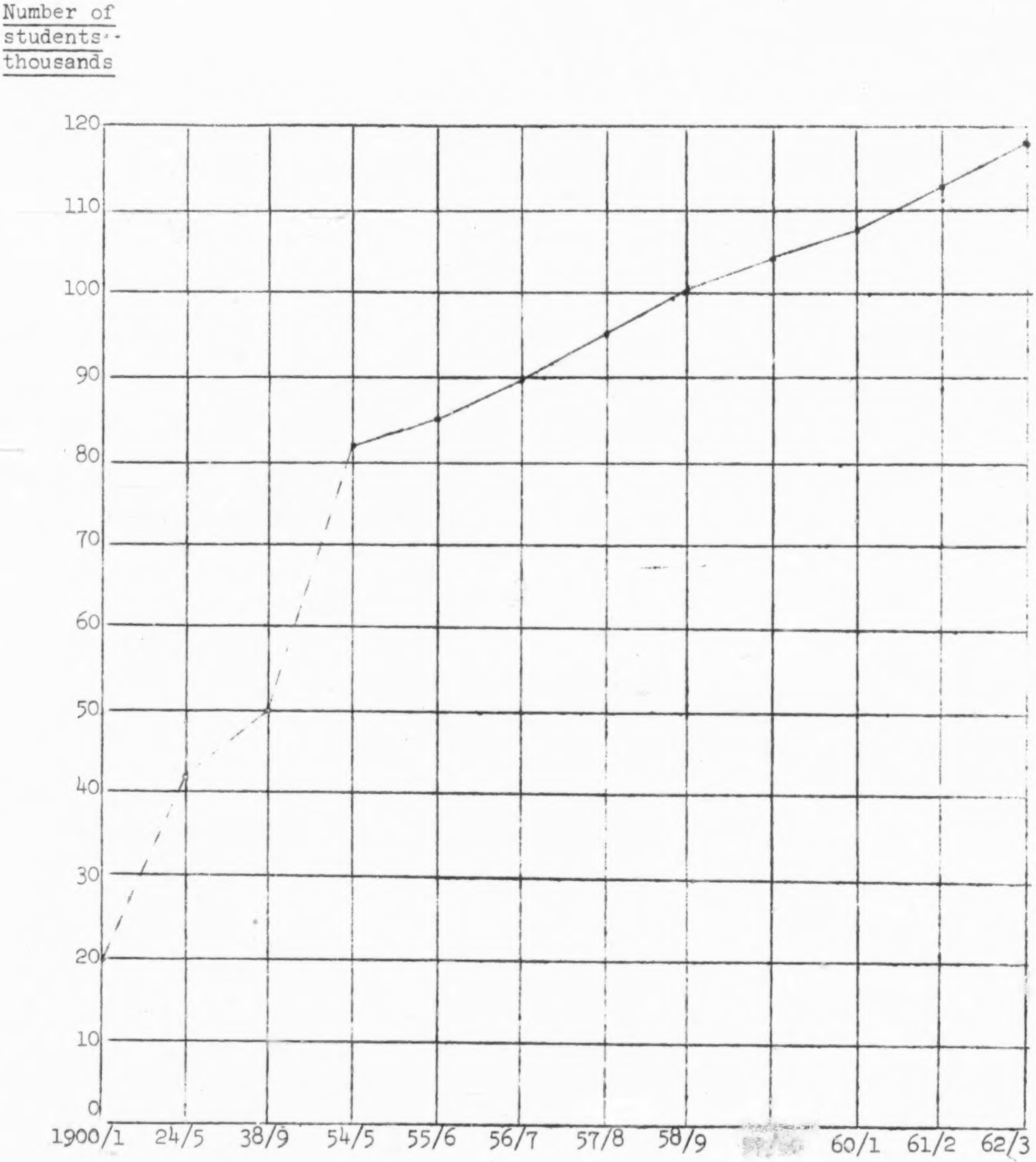
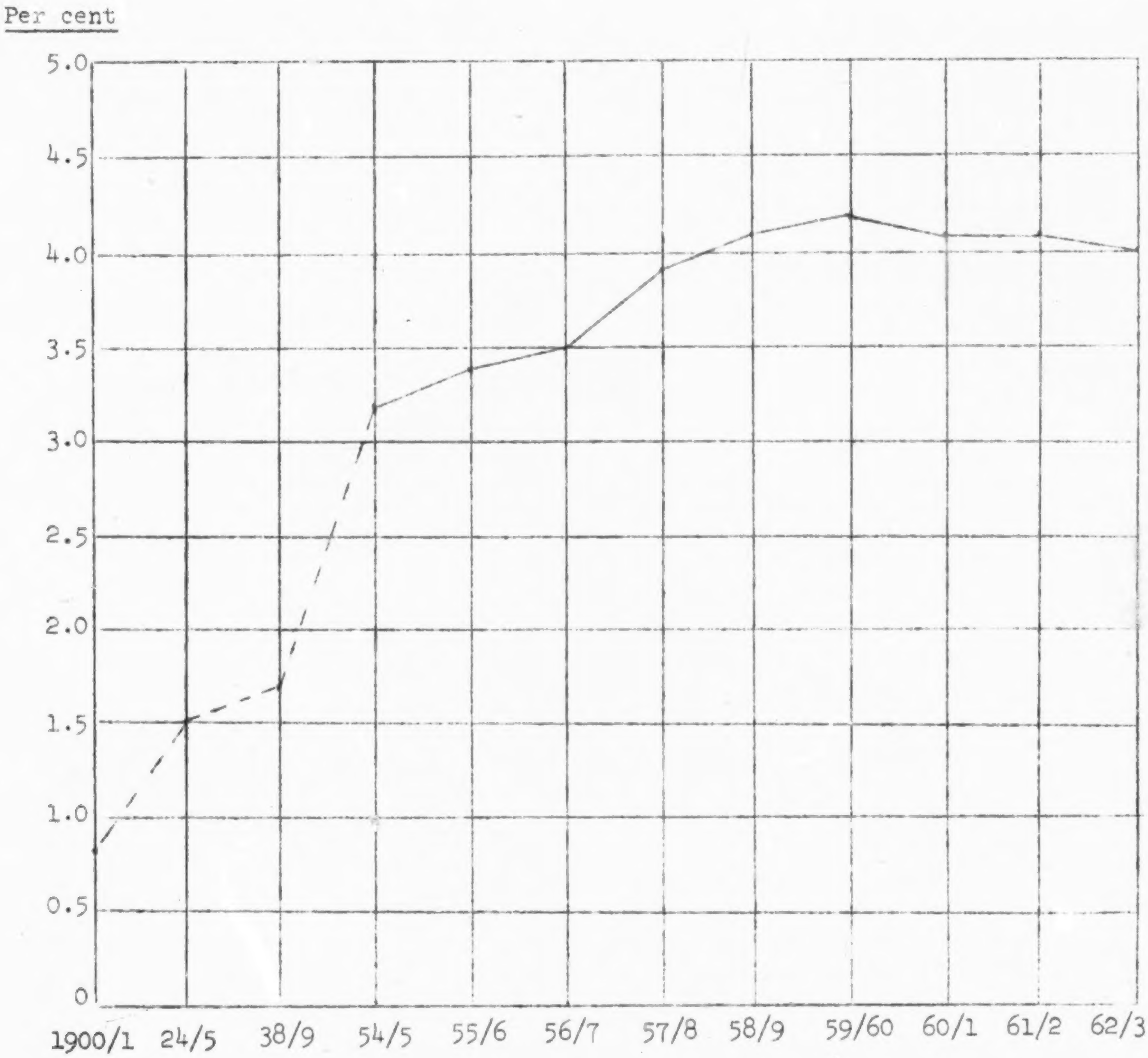
(1) See Charts 3.1 and 3.2

Chart 3.1 Students in universities (Great Britain): 1900-1963*



*Source: Robbins: Report, Table 3, p. 15, and Appendix I, Table 46, p. 163

Chart 3.2 Percentage of age-group entering universities (Great Britain): 1900-1963⁺



⁺Source: Robbins: Report, Table 4, p. 16.

Robbins recommended that the number of students in the university system increase from 130,000 in 1962/63 to 219,000 in 1973/4, an increase of a little less than 70% in a bit over a decade. When our questionnaire was distributed a year later, the recommendations (at least regarding size, though of little else) had been accepted by both the Conservative Government and the Labour Opposition which was soon to achieve power. We included a question* regarding expansion of the system with response categories that bracketed the Robbins recommendations. The distribution of responses in our sample was as follows:

(turn to next page)

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*The question reads as follows: Q5. "Which of the following opinions concerning the number of students in the university system as a whole lies closest to your own opinion? In each case please assume that staff and resources are made available."

Table 3.1 Opinions on Expanding the University System (per cent)

	Per cent answering
a. We should double the numbers or more in the next decade	27
b. We should increase the numbers about 50% in the next decade	40
c. We should increase the numbers about 25% in the next decade	28
d. I think that the number of students admitted to the universities should remain about where it is now	4
Total number	1408(2)

Response (b), an increase of 50% in a decade, was closest to the Robbins recommendations of about 70% in 11 years; those making this response, together with the little over a quarter wanting a doubling of numbers or more, will be seen as supporting a "significant" growth in the system as a whole. A growth of 25% over a decade would be distinctly smaller than the growth of the age grade and of the numbers of qualified candidates, and would make for an even more highly selective system than the universities were at the time of Robbins.(3) Thus, about two thirds of the teachers in our sample supported an expansion of numbers of 50% or more, while even after the powerful Robbins arguments for modest recommendations (based on projections that very quickly were exceeded by reality), roughly a third opposed any significant growth in the size of the university system.

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(2) This includes 45 respondents, about 3% of the total, who did not answer the question for one reason or another. These cases will be omitted from the subsequent analysis. In general "Non-responses" will be omitted from tables, except where their numbers are large enough to raise a special question or affect the character of the findings.

(3) See Higher Education: Report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins, 1961-3, London, H.M.S.O., 1963 (hereafter Report), Chap. VI esp. pars. 147-181, esp. Table 30; also Report, Appendix I, passim, for detailed statistical projections.

The teachers were also asked about growth in the number of places in their own subjects. We may imagine that while academics might be cautious about growth of the system as a whole, they would be more likely to see the virtues of a growth of their own subjects. But British academics are wary of growth and its presumed consequences: where only 32% preferred a growth of 25% or less in the university system as a whole, 40% wanted to see that low a rate of growth over the next decade in their own subjects. And where 28% favored at least doubling the numbers of university students overall, only 18% favored increasing the numbers in their own fields by 75% or more in the next decade.(4)

The size of a university system can be discussed by reference to the numbers of students--i.e., in terms of the institution--or by reference to the proportion of the age group gaining a university education--i.e., in terms of the population at large, and implicitly, the needs of the society. National comparisons of higher education more commonly take the latter form. The Robbins Committee provide data and comparisons in both forms. They observe that as of 1958/59 about 4.5% of the relevant age group in Great Britain entered a full-time course leading to a degree;(5) they see this rising to 6% by 1968/69(6) and to about 17% in all forms of full-time higher education by 1980.(7)

Our sample of British academics were asked what proportion of the age grade they would like to see entering full-time higher education in Great

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(4) See (Appendix) Table 3.34

(5) Report, p. 42

(6) Report, p. 46

(7) Report, p. 66

Britain. (The question appears below.*) The question was asked without reference to a date, but in the context of a reminder of the Robbins recommendation of 17% by 1980. The responses were as follows:

Table 3.2 Opinions on Proportion of the Age Grade to Receive Higher Education

	Per cent answering
40 per cent or more	6
30 per cent or more	7
20 per cent or more	39
10 per cent or more	46
5 per cent or less(8)	1
Total number	1335

Thus, about half our sample would like to see a higher proportion in British higher education than Robbins envisions by 1980; but very few (about one in eight) envision the kind of mass higher education, with a third or more of the age grade in some form of higher education, already existing in the USA and the USSR. Here, even more clearly than in the figures on their preferences for the size of the university system, we see that the dominant view of British academics, a year after the Robbins Report, is much like that of the Report itself--supporting a moderate expansion of the present highly selective system of higher education, but opposing the transformation of that system in the direction of mass higher education.

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*Q10: "Here are some proportions of the relevant age group entering universities and other full-time institutions in different countries. Which of these proportions would you like to see in Britain? (The Robbins Report recommends raising the present proportion of 8.5% to 17% by 1980.)"

(8)The reader will note that the categories are not completely exhaustive, and that no provision has been made for those preferring figure between 5 and 10 per cent. This error in the construction of categories probably affects the last two figures; however, the bulk of the analysis contrasts those supporting a proportion of more than 20 per cent with those wanting to see less than 20 per cent of the age grade gaining higher education. Roughly half the sample fall into the two lower categories; the gap between 5 and 10 per cent should not affect that proportion.

Sources of attitudes toward expansion

The British university system has been growing rapidly since the end of World War II. In 1938/39, the last peace-time year before the war, university enrollments were about 50,000. By 1954/55, after the post-war bulge, the enrollments were 82,000, and by 1962/63 they were up to 118,000.(9) Thus, in the eight years preceding Robbins university places had increased by nearly 50%, while in the 24 years separating 1938/39 and 1962/63 they had grown by nearly 140%, not far off the increase projected by Robbins (166%) for the 18 years between 1962/63 and 1980/81. So British academics have been experiencing growth, both in their own institutions, which grew, on average, from almost 2000 to about 4000 students between 1938/39 and 1962/63, and in the system as a whole.(10) We might assume, therefore, that their judgements of the effects of the growth in the recent past on the quality of their students will have some bearing on their sentiments regarding future expansion.

At this point we might introduce two caveats: first, the attitudes of university teachers toward future growth may be independent of their judgement of the effect of past growth on student quality. since other considerations, such as the reduction of social inequalities or the national interest, may lead them to support university expansion even if they believed it would lower student standards.(11) Secondly, judgements of the effect of past expansion on student quality may not shape attitudes toward future expansion, but rather, both past perceptions and attitudes toward expansion may reflect more basic attitudes about the selectivity and size of the university system, and even more basic political dispositions. We will be exploring both of these possibilities, which however, should be in mind throughout the following discussion.

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(9) Report, Appendix I, Part IV, Table 46.

(10) See (Appendix) Table 3.35 for details.

(11) For example we might quote a social psychologist who was interviewed in the early stages of the study (before the appearance of the Robbins Report): "I favour university expansion with an emphasis that can scarcely be exaggerated...I think we would still get the very best people somewhere, and if there aren't any more of them I'm still in favour of getting...to larger numbers, even larger stupid numbers."

First, let us see how university teachers as a whole feel about the effects of recent expansion. Our question (6) asked: "Do you feel that the expansion that has already taken place over the past decade has affected the quality of students admitted to your university in your subject?" The distribution of responses for the whole sample was as follows:

Table 3.3 Opinions on the Effect of Past Expansion.

	Per cent answering
a. It has lowered the average level of ability of my students very considerably in recent years.	1
b. It has lowered the average level of ability of my students to some extent in recent years.	20
c. It has not changed the quality of my students appreciably	66
d. The overall level of ability of my students has risen in recent years.	13
Total	1313

As we can see, two thirds of the teachers do not see recent expansion as having any appreciable effects on the quality of their students, with the remainder nearly evenly divided between those who feel that quality has gone down to some extent and those who feel that average ability has risen with expansion.

It may be relevant to note the Robbins findings regarding the effect of the expansion (both of the universities and the sixth form) of the previous decade on the quality of university entrants.

> In 1938 only about 3 per cent of those aged nineteen were receiving full-time education; in 1962 the proportion was 7 per cent, nearly all of them in higher education.
>
> This expansion has not been accompanied by any lowering of standards, but rather the reverse. For example,...the percenage of the age group achieving minimum university entrance qualifications has risen by over a half since 1954, whereas the percentage entering universities has risen only by a quarter, and has actually fallen since 1959. In the last few years, in other words, university expansion has not even quite kept pace with the increase in the age group, let alone the increase in the number of those with the minimum qualifications for entrance. (12)

The rise in the number of qualified candidates has inevitably driven qualifications for entry higher, so that while "two passes at the Advanced Level of the General Certificate of Education are the minimum qualification for entry to universities in England and Wales," at the time of the Robbins Report "over 80 per cent of the students have at least three." This reflected a rise in standards of entry over the preceding decade. In 1954, 72% of those gaining the minimum school entrance qualifications in England and Wales (that is, 2 'A' Level passes) gained entry to a university. By 1961 that figure was down to 59%.(13) Looked at another way, it was estimated that 57% of university applicants were admitted in the same year; by 1961 that figure was down to 42%.(14)

There can be little question that the overall quality of university students rose during the decade preceding Robbins. Of course, there is no assurance that the overall improvement in the quality of students in the system as a whole was reflected in the experience of any particular teacher. And yet, when we see the overwhelming majority of teachers not recognizing any improvement in their students during these years, while a fifth claimed that the quality of their students was deteriorating, we begin to suspect that these judgements are strongly influenced by the fear of expansion widely held by university teachers, and by convictions that expansion, even if necessary or desirable on other grounds, must necessarily be associated with a lowering of standards, even in the face of evidence to the contrary. This widespread fear of growth (or indeed of any kind of change) is a pervasive characteristic of the British academic man, as of his institutions.

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(12) Report, Chapter III, p. 12.

(13) Robbins, App. I, Table 14, p. 119.

(14) Ibid., Table 15, p. 120. These figures exclude Oxford and Cambridge.

This apprehension of the effects of expansion can be seen even more clearly in the teachers' anticipations of the effects on quality of future growth. Judgements of its past effects are at least constrained by the teacher's own experience (as well as by the statistical evidence reported by Robbins and then widely in the press). But the future provides an empty canvas on which the teachers could project their own hopes and fears, mostly the latter, regarding expansion.

Our question (Q11) took the form: "If the numbers of students doubled in the next decade with the same staff/student ratio, what would you expect to be the effect on the quality of graduates in your subject from your university?" Of the total sample, 16% anticipated a "marked deterioration" in their graduates, 50% said they expected "some deterioration," 27% thought that degree of expansion would have no effect on their graduates' quality, and only 6% thought that rate of expansion would be accompanied by an "improvement" in their graduates.(15)

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(15)See (Appendix) Table 3.36

Doubling the number of university students in a decade is a somewhat higher rate of growth than the 68% Robbins recommended for 1973/74, though two years after his report was published the man who produced its five volumes of statistics suggested a revision upwards of 25,000 places over the Robbins projections for 1973/74, which would mean very nearly a doubling in numbers by 1973/74 over 1962/63 enrollments.(16)

Robbins gave the firmest assurances(17) in connection with his recommendations for expansion, that the quality of students would not suffer. And his Report reiterates that its projections of the numbers of qualified candidates by present standards were very conservative ones, and did not take into account a series of factors (such as the raising of the school-leaving age) which would certainly increase the numbers of qualified candidates, and thus allow an even greater expansion with no lowering of standards.(18) Despite that, and in the face of the evidence of rising standards over a decade when enrollments were increasing by 50%, and a question which asks the respondent to assume that growth does not affect present staff/student ratios, it is a bit surprising to find two-thirds of the sample anticipating a deterioration of greater or lesser proportions in the quality of their own graduates if numbers were doubled in a decade.

Here is a clear expression of the apprehension of expansion noted earlier in connection with judgements of the effect of past expansion. As we shall see, these fears at once have sources in broader social and political perspectives, and also operate as an important determinant of attitudes toward expansion.

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(16) Professor Claus Moser, as reported in The Observer, October 31, 1965.

(17) See Report, chap. VI, pars. 137-146, for summary, and App. I for details, esp. Pts. II-IV.

(18) Report, p. 53; also Martin A. Trow, "Second Thoughts on Robbins: A Question of Size and Shape", Universities Quarterly, March 1964, pp. 136-152.

Attitudes toward expansion and apprehension regarding its effects on the quality of students

Before we explore some of the sources of this apprehension, let us consider its relation to the attitudes teachers hold toward expansion. A number of possibilities present themselves. We might expect that judgements of the effects of past expansion on student quality will affect anticipations of future effects as well as attitudes toward expansion themselves. Another possibility is that attitudes toward expansion are in some measure independent of apprehension of its effects; people may support expansion for other reasons despite their belief in its deleterious effects. Or third, despite the apparent relation implied in the correlation, it may be that apprehensions of the effects of expansion may not shape attitudes toward expansion, but rather that both apprehensions and attitudes may reflect more basic sentiments about the selectivity and size of the system and even more basic political dispositions.

First let us look at the relation of judgements of the effects of past expansion to attitudes toward expansion of the system (Table 3.4).

Table 3.4 Recommended Expansion of System, by Experience of the Effects of Expansion on Student Quality (per cent)

	Effect of Past Expansion		
Recommended Expansion of System	Lowered*	No Change	Improved
Double	12	29	46
50%	38	41	41
25%	39	28	10
None	12	2	3
N	(269)	(839)	(172)

*"Lowered" combines those who believe expansion "lowered very considerably" and "lowered to some extent" the quality of their students.

Of those who believed that past expansion has been accompanied by an improvement in the quality of their students (as Robbins data suggests was true for the whole student population), nearly half favor doubling the number of students in the next decade, as compared with only about one in ten of those teachers who believed expansion had the effect of lowering the quality of their students. Only half of the latter group favored expanding by even as much as 50% over the next decade, well below Robbins recommendations.

Similarly, those who anticipate a decline in quality attendant on growth are also less likely to support expansion (Table 3.5).

Table 3.5 Recommended Expansion of System, by Anticipation of the Effects of Expansion on Student Quality (per cent)

Recommended Expansion of System	Effect on Future Expansion: Marked Deter.	Some Deter.	No Change	Improve
Double	15	17	46	56
50%	27	45	39	33
25%	44	33	15	11
None	14	4	1	0
N	(212)	(667)	(369)	(84)

Thirdly, and not surprisingly, we find (Table 3.6) that those who have found past expansion to be associated with a decline in the quality of their students are also likely to expect a further deterioration in quality with the even higher rate of expansion posited by our question (a rate higher than Robbins recommended, but close to what the actual size of expansion will probably be).

Table 3.6: The Relation of the Experience of Effects of Expansion on Anticipation of Effects of Further Expansion (per cent)

	Experience of Effects of Expansion			
Anticipation of Effects	Much Lower	Somewhat Lower	No Change	Improve
Marked deterioration	50	30	13	11
Some deterioration	33	60	50	34
No Change	17	6	33	38
Improvement	0	3	5	18
N	(12)	(262)	(847)	(171)

It is interesting that in no group, even those who experienced an improvement in the quality of their students over the previous decade, does any appreciable proportion anticipate an improvement with a doubling over the next decade. And it is only this last group that gives a bare majority to the notion that doubling will not bring about a deterioration in student quality. It is very likely that it was the idea of a doubling of student numbers that generated a considerable amount of the apprehension reflected in Table 3.6; though at this writing, even a very few years later, the growth in the numbers of qualified candidates makes it seem highly likely not only that a doubling of numbers will be achieved, but that it will lead to no decline in the quality of students, and perhaps even an overall improvement.

On both of these questions, the judgement of past effects and the anticipation of future, we are dealing with the teachers' apprehensions regarding the impact of growth on quality. We may say that those who see expansion, either retrospectively or in anticipation, as having no effects or positive ones, on student quality, are "not apprehensive" about expansion. Those who see negative effects both in the past and in the future are "highly apprehensive"; those who see them either in the past or the future are "somewhat apprehensive" (almost all of these have doubts about the future rather than the past).(19) Table 3.7 shows the relation of attitudes toward the expansion of the system among university teachers with these varying degrees of apprehension regarding the effects of expansion on quality.

Table 3.7 The Relation of Apprehension of Effects of Expansion to Attitudes Toward Expansion (per cent)

Attitudes Toward Expansion	Apprehension of Effects of Expansion: Highly Appr.	Somewhat Appr.	Not Appr.
Double	10	20	49
50%	37	43	37
25%	41	33	14
None	12	4	-
N	(242)	(615)	(405)

We see in Table 3.7 the strong relation of these apprehensions of the effect of expansion on the attitudes teachers hold regarding expansion. Nearly half of those who are not apprehensive (and they comprise distinctly less than a third of the total sample) favor doubling the system in a decade; 86% support "significant expansion" (50% or larger increase in places). By contrast, only 1 in 10 of the most apprehensive teachers favor doubling numbers, and less than half support "significant expansion."

Expansion of the teacher's own subject

Logically, experience of and attitudes toward expansion in one's own discipline might be largely independent of attitudes and sentiments regarding expansion of the university system as a whole. We can certainly imagine men

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(19) For this "index of apprehension" see (Appendix) Table 3.37 and note.

(and indeed know some) who strongly support the expansion of the system but who believe their own subjects to be as large as is necessary or desirable. But while such people exist, they are fairly uncommon, for a number of reasons.

First, academic men tend to be especially conscious of the values and virtues of their own subjects, and to want to see them strongly represented in universities. Indeed, the advancement of the subject, to which the teacher is honorably dedicated, may in part depend on its gaining a "fair" share of the added resources of men and money associated with university expansion. Thus, if one is in favor of expansion of the system, he is also likely to want his own subject to expand to retain (or attain) its "rightful" share of influence and resources.

Moreover, we would expect academic men to generalize their experiences of (and attitudes toward) the expansion of their own subjects both to other subjects and to the future. If men believe the quality of their students has suffered from expansion in the past, they are likely to believe this has been and will be true of other subjects and other universities.

The consistency of attitudes on expansion (of system and subject) may arise, as in the above ways, through some kind of logical processes. In addition, as we suggested earlier, to some extent all these sentiments and perceptions may be expressions of more generalized ideologies and value preferences regarding university expansion.

In any event, however successful we may be in distinguishing among these different social psychological processes, they all work against the independence of sentiments about subject and system expansion and toward making them more congruent and similar. Let us see to what extent this is the empirical case.

Table 3.8 Relationship Between Support for Expansion of the System and of the Teacher's Own Subject (per cent)

Recommended New Places in Own Subject	Recommended Expansion of Number of Students Overall			
	Double or more	50%	25%	Remain Same
75%	52	7	3	0
25%-75%	31	66	25	9
Under 25%	11	22	62	40
No expansion	5	5	9	52
N	(369)	(540)	(381)	(58)

We see in Table 3.8 first the strong tendency toward consistency that we spoke of above; those who favor expansion of the system are also likely to favor a growth of numbers in their own subjects. Of those who favor at least doubling the numbers of students overall, over half favor a growth of at least 75% of their own subjects. At the other extreme, those who favor little or no growth of the system are overwhelmingly against the expansion of numbers significantly in their own subjects. (A growth of 25% over a decade is not in our sense of the word "significant expansion," since it is well below Robbins' modest projections of growth of qualified candidates.) It is clear, however, that there is more support in our sample for an expansion of student numbers overall than there is for expansion of the teachers' own subjects. And this means that there is a significant minority--roughly 16% of our sample -- who do not support a significant expansion of their own subjects (25% or more) but who do support an expansion of 50% or more in total university places. (The group that supports a growth of their subjects but a growth of less than 50% overall is less than 8% of the sample.)(20)

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(20) See (Appendix) Table 3.38

We will certainly want to consider more closely differences between those academic men who are consistently for or against expansion and those who favor it for the system but not for their own subjects. Before we do that, however, we might look at some of the determinants and correlates of attitudes toward expansion of one's own subject.

Reasonably enough, those who favor the expansion of their own subject are also likely to believe their own departments are too small (Table 3.9). In a broader perspective, they are also more likely to believe that "in the general pattern of British university education" their subject receives "less support than it deserves" (Table 3.10). Two thirds of those who favor a large expansion (75% or more) of their subject also believe that their subject gets less support than it deserves, as compared with less than a quarter of those opposed to any expansion of their own subject.

The connection of expansionist sentiments with apprehension regarding its past and future effects on quality can be seen at the level of the subject as well as the university system: support for expansion of the teacher's own subject is strongly associated with the teacher's estimate of its future effect on the quality of his students (Table 3.11), and only a little less strongly related to his judgement of the effects of expansion over the preceding decade (Table 3.12).

Tables 3.9-12 The Relationship Between Support for Expansion of the Teacher's Own Subject and Opinions on Department Size, Support for Subject, and Effects of Past and Future Expansion (per cent)

		Recommended New Places in Own Subject			
		None	Less than 25%	25-75%	75%+
3.9	Present department too small	25	31	50	69
3.10	Believes own subject receives less support than it deserves	23	36	49	67
3.11	Believes doubling in decade will lead to some or marked deterioration in quality of graduates in own subject	79	82	64	36
3.12	Believes the expansion over past decade has lowered quality of students admitted to own department to some extent or very considerably	35	26	19	11
	N's (vary slightly)	(112)	(424)	(568)	(250)

We might imagine that support for expansion of one's own subject would be related to the teacher's sense of the quality and reputation of his own department. On one hand, rapid expansion can provide the resources and opportunities to upgrade a weak department, and thus strengthen its reputation. Conversely, if increased numbers are seen as a threat to standards, then we might expect teachers in weak departments to oppose expansion for fear of a further weakening of its academic position.

There is a slight tendency for teachers in departments whose comparative reputation is, they believe, less than it deserves,to be somewhat more likely to favor expansion of their subject than teachers who believe their departments have the reputations they deserve or better. But there is no clear relation at all between attitudes toward expansion and their own estimates of the quality of their departments. British academic men, from our sample, by and large, do not see expansion as providing an

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opportunity to strengthen the quality of their departments. In this respect British academic men differ from their counterparts in America, where expansion has long been seen as one of the major strategies for the upgrading both of the quality and the reputation of an academic subject as well as specific departments.

Support for expansion in different subject areas

If we ask where in the University structure support for given subjects is most widespread, the answer is clear: teachers in the social sciences are distinctly more likely to favor expansion of their subjects, almost four times as likely as teachers in the arts subjects, and twice as likely as teachers of science to favor an expansion of 75% or more in their subjects over the next decade (Table 3.13). But it is not clear from these figures how much this is a judgement of the special needs or opportunities of social science subjects, and how much the expansionist dispositions of social science teachers. For when we look at their attitudes toward expansion of the university system as a whole, social scientists also emerge as more likely to favor doubling of student numbers overall (Table 3.14).

Tables 3.13-14 Attitudes Toward Expansion of Subject and System by Subject Area (per cent)

		Soc. Stud.	Tech.	Science	Arts	Med.
3.13	Expand Subject 75%	41	25	17	11	8
3.14	Expand System Double or more	42	29	25	20	24
	N (varies slightly in the two tables)	(214)	(178)	(404)	(349)	(136)

A comparison of Tables 3.13 and 3.14 suggests that social studies teachers are more generally expansionist than teachers in other fields, but over and above that are more likely to support expansion of their own subjects. We will later on be exploring the social characteristics of teachers in the several subject areas, and that may allow us to shed more light on the differences in attitudes toward expansion here reported.

Differences in these issues among the several faculty ranks is not very large; only the Readers are noticeably less likely than other ranks to support significant expansion of their subjects. Where about three in five of all other ranks favor expansion of 25% or more, a little less than half of the Readers favor that much expansion in a decade. We might guess that research oriented teachers (specially represented among Readers) might be less interested in the growth in the numbers of students (and inferentially, of teaching duties). This is a hypothesis we can explore when we look at attitudes toward teaching and research among university teachers in Chapters IV and V.

Attitudes toward university expansion as an aspect of political dispositions

The strong relationships we reported between attitudes toward university and disciplinary expansion and the teacher's experience of and anticipation of its effects on student quality suggest a causal connection: that these apprehensions shape expansionist--or restrictionist--attitudes. This argument is supported by the relationship we find between these apprehensions and teachers' feelings about the size of their departments and universities, and is at least not contradicted by our finding of an absence of relationship with judgements of the quality of the teacher's own department. It is not his judgement of the present quality of the department (university, subject, system) which influences a teacher's attitude toward expansion, but rather his concern (or lack of concern) regarding the effect of expansion on quality. So at least the data seem to suggest.

But there is a different way of looking at these findings, and some additional evidence to support that different interpretation. This alternative view is that attitudes toward expansion are not only, or even primarily, shaped by apprehensions regarding the effects of expansion on quality, but to a very large extent by the teacher's general political values and attitudes. This view would hold that these sentiments regarding expansion are rooted in prior, essentially political ideas about the nature of the good society, and the role of higher education in it. These beliefs, in turn, give rise to the interpretation of past experience and the anticipation of future effects of expansion, as well as to the attitudes teachers express regarding expansion of the university system (and their subjects, departments and universities).

One bit of evidence in this direction is provided by the distribution of attitudes university teachers held toward giving university status to the CATS.* Clearly this policy, recommended by Robbins and adopted by the Government in the spring of 1964, was the kind of "expansion" that would have least influence on the quality of students admitted to or graduated from the existing universities. A reluctance to grant CATs university status we suspect arose largely out of a concern for the "meaning of a university degree," and a reluctance to "dilute" its standing or distinction. About two thirds of our sample, following Robbins, supported granting university status to the CATs; a little over a quarter opposed it, the remainder not answering or having no opinion. But when we look at this distribution in relation to the teachers' attitudes toward expansion of the university system, we find a very strong relation (Table 3.15).

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*The ten Colleges of Advanced Technology, recommended by Robbins for upgrading to full degree-giving universities, with expansion of student numbers and of the range of subjects offered.

Table 3.15 Support for Granting CATs University Status by Attitudes Toward Expansion of the University System (per cent)

Grant CATs University Status?	Recommended Expansion of Number of Students Overall			
	Double	50%	25%	None
Yes	85	69	50	32
No	11	25	43	61
No answer	5	6	7	7
N	(372)	(546)	(386)	(59)

Whereas 85% of those who favored doubling the numbers of university places in a decade also favored giving CATs university status, the proportion dropped to only a third of those who opposed any university expansion, and half of those who supported expansion of less than 25%. Again, granting CATs university status did not affect the quality of entrants to any existing university or subject; it did, however, affect the shape and inclusiveness of the university system. And attitudes toward it were affected by the teacher's basic conceptions of the broad nature and functions of the university system.

The most direct evidence of the political sources of these sentiments is provided by findings of strong relationships between these sentiments and political dispositions. The respondents were asked to locate themselves on the political spectrum ranging from "far left" through "moderate left" and "center" to "moderate right" and "far right." The distribution of responses on this spectrum was as follows:

Table 3.16 Location on "Political Spectrum"

	Per cent
Far Left	4
Moderate Left	47
Center	27
Moderate Right	18
Far Right	1
No answer	3
Total	1408

Nearly half the sample located themselves on the Moderate Left; over a quarter in the Center, nearly a fifth on the Moderate Right and small proportions at both extremes. The relation of this self-location on a political spectrum with party identification* is close and worth noting (Table 3.17).

Table 3.17 Party Support Related to Position on the Political Spectrum (per cent)

	Political Position				
Party	Far Left	Mod. Left	Center	Mod. Right	Far Right
Labour	87	71	10	2	8
Conservative	0	6	55	91	83
Liberal	3	16	21	4	0
Other	6	1	1	0	0
None	3	7	13	3	8
N	(62)	(624)	(337)	(345)	(12)

As we can see, about 7 out of 10 on the Left have "generally supported" Labour; an even higher proportion, nearly 9 out of 10, of those on the Right have generally supported the Conservatives. Half of those in the Center are also Conservative supporters, with the remainder distributed chiefly among the Liberals or having no party preference.

There is little doubt, from what we know of political attitudes and their genesis, that these are arrived at prior to and independently of the teacher's experience in the university. They are associated with much more basic aspects of life experience and more general social and political values. It is highly unlikely that many teachers have changed their basic political dispositions because of their views on university expansion. Therefore, the strong relationship that we find between holding Left political views and various expansionist attitudes supports the contention that these attitudes are part of much more comprehensive sets of social and political attitudes.

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*Given in Q53: "What Party have you generally supported?"

Tables 3.18-19 Various Attitudes on University System Expansion by Position on the Political Spectrum (per cent)

Table 3.18 Expand University System	Political Position Far Left	Mod. Left	Center	Mod. Right		Far Right
Double	60	34	21	12	12	0
50%	30	42	44	35	34	9
25% or less	10	24	35	53	54	91
Table 3.19 Proportion of the Age Grade						
40%+	31	8	3	2	2	9
30%+	19	9	4	5	5	0
20%+	28	44	37	34	33	9
Less than 20%	22	40	56	60	61	82
N's (vary slightly)	(58)	(625)	(364)	(238)	(249)	(11)

Table 3.18 shows support for doubling student numbers in a decade declining from 60% among those who place themselves on the Far Left to 12% among those who place themselves on the Right. (21) The proportion supporting "appreciable growth" (that is, 50% or more in a decade) of student numbers in the decade fell from 9 in 10 of teachers on the Far Left to three quarters of those on the Moderate Left, to two thirds in the Center, to well under half of men on the Right.

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(21) Only 12 respondents, less than 1% of the total, identified themselves on the Far Right. They appeared on these questions as highly restrictionist--for example, none of them favored doubling student numbers--but because of their small numbers they were combined in these and succeeding tables with the much larger group who place themselves on the Moderate Right, in most cases without great effect on the distribution of responses of that category. The reader must keep in mind that the great bulk of those on the Right are men who identify themselves with the Moderate Right.

Similarly, general political dispositions are very strongly related to teachers' conception of the proportion of the age grade that should at some indefinite future time gain higher education. The figures here are striking indeed. Support for anything like mass higher education--30% or more of the age grade gaining higher education--is supported by only half of the Far Left, and by very small proportions of any other categories of political disposition. (Looked at another way, only 13% of the whole sample want that kind of system of higher education. Conversely, nearly half of the whole sample wants to see less than 20% of the age grade in higher education.) The proportion with those views ranges from 22% of the Far Left to 61% of the Right (combining Far Right and Moderate Right). In a sense, these views are realistic, since the Robbins recommendations see only 17% of the age grade in full time higher education of all kinds by 1981;(22) the prospects for mass higher education lie in the far future, if these are the broad guidelines to the structure and growth of British higher education. Yet these views suggest that Robbins was not more conservative but perhaps less so than the mass of British academics; when even the large body of Moderate Leftists would not "like to see" a system of mass higher education in Britain, this tells us that pressure for expansion beyond the Robbins recommendations is not likely to come from within the university system, which leaves the question of where it will come from, or perhaps whether.

Nevertheless, while the relation of political position to expansionist sentiments is clear and strong, it is not a perfect one. Of special interest are the nearly two out of five men on the Left who want a system of higher education which is attainable by less than a fifth of the population, as well as the smaller number of men on the Right and Center who would like to see a much larger proportion of the age grade in higher education. These could be an important minority, if economic and attitudinal pressures for a breakthrough develop in Great Britain

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(22) Report, p. 66

Political dispositions and attitudes toward expansion of own subject

A position on the political spectrum is a shorthand way of stating a position on a broad range of social and cultural issues. While many men (and perhaps especially academics) pride themselves on the independence of their judgements and their abhorrence of "ideology," nevertheless, a political position implies a certain measure of consistency on a range of public issues, and over time. (And this consistency need not be incompatible with independence of mind: as an American voter once observed to a pollster, "Just because I've voted Republican in every election for forty years doesn't mean I haven't made up my own mind.") Higher educational policy in Britain in the 1960's was certainly a public and a political issue, despite the fact that it had not figured prominently in the party debates or in the post-war general elections. But reflected only imperfectly in the party documents, and perhaps cutting more deeply in the party rank and file than between the party leaders, are profound differences between the British "Left" and "Right" over the nature and functions of higher education. And we have seen evidence of those differences in Tables 3.18 and 3.19 above, which show the strong relation of political position to attitudes on university expansion.

But political dispositions color a wider range of attitudes, sentiments and perceptions regarding university expansion than merely the policy question of whether and how much the system as a whole should expand, or how large a proportion of the age grade should gain a higher education.

For example, no political party or position is clearly identified with the espansion of any given subject. Yet Table 3.20 shows a clear relation between teachers' general political dispositions and their feelings about the expansion of their own subjects (below).

Table 3.20 Attitudes Toward Expansion of Own Subject by Political Position (per cent)

	Political Position			
Expand Own Subject	Far Left	Mod. Left	Center	Right
75% or more	46	22	15	7
25%-75%	26	44	42	41
Less than 25%	28	34	42	52
N	(61)	(642)	(370)	(256)

Attitudes toward the expansion of the system, of one's own subject, or of the eventual suze of the cohort gaining higher education, are after all reflections of values closely linked to basic political values, of notions about the nature of the good society and of the role of higher education in it. The pervasive influence of political sentiments is more strikingly seen in their influence on men's perceptions of what is an objective fact: that is, whether recent expansion has affected student quality.(23)

As we see in Table 3.21, nearly a third of the men on the Far Left believed recent expansion had been accompanied by a rise in student quality, as compared with only 7% of the men on the Right. On the other hand, nearly twice as many men on the Right as on the Left thought that the quality of their students had declined in the previous decade (below).

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(23) The fact is, as we noted earlier, that the quality of entrants to British universities, at least as measured by their GCE qualifications, rose sharply over the decade prior to our survey. See Robbins, App. I, pp. 118-9.

Table 3.21 Judgements of the Effects of Past Expansion on the Quality of Students in Own University and Subject, by Political Position (per cent)

Effect of Expansion on Student Quality	Far Left	Mod. Left	Center	Right
Lowered (very greatly or to some extent)	17	15	24	30
No change	52	68	66	64
Improvement	31	17	10	7
N	(54)	(610)	(356)	(250)

Table 3.22 Anticipation of the Effects of Future Expansion on the Quality of Students Graduated from Own University and Subject, by Political Position (per cent)

Anticipation of Effects of Expansion on Student Quality	Far Left	Mod. Left	Center	Right
Deterioration (some or marked)	38	62	67	80
No change	38	31	27	17
Improvement	23	7	6	3
N	(60)	(636)	(375)	(256)

The relation of political position to these judgements of the effects of expansion on quality is even greater with respect to future growth than it is for past expansion, as we can see by comparing Table 3.22 with Table 3.21. In every category of political position our university teachers are more pessimistic about the effects of a doubling in a decade than about the effects of the (70%) expansion in numbers over the previous decade. But in addition, the differences between the Far Left and the Right are greater (though it is only the relatively small group on the Far Left who differ so sharply). Apart from the relatively small group on the Far Left (the only category to show a majority who are relatively optimistic about future growth), between 40 and 50% of all the other teachers are more apprehensive about future growth than about the effects of recent expansion. Surely the figure suggested in our question, of doubling numbers in a decade, was frightening to a great majority of university teachers, though it is not so much higher than Robbins'estimate (with his firm assurances of no decline in quality) and very likely close to the degree of expansion that will actually be achieved (also without a decline in quality).

There are two distinct points to be made about Table 3.22: first, the high degree of apprehensiveness with which a majority of teachers contemplated the growth of higher education even after Robbins; and second, the differences in this regard among teachers of different political dispositions. It is unlikely that the academic standards of conservative teachers are higher than those of men of the Left; differences in their perceptions of effects of past expansion as well as relative pessimism about the future are at least in part shaped by their support for expansion, and that in turn is rooted in basic political dispositions. Thus, these apprehensions are influenced by attitudes toward expansion, at least as much as they influence them; and both, in large part, are common reflections of underlying political dispositions. We can see the relation of political disposition to apprehension by using the index of apprehension introduced on page 15.(24)

We have been speaking of the bearing of political position and "dispositions," rather than party support or identification. Yet much political research has shown the independent influence of party identification on positions people take with respect to specific issues; on many matters, people bring their positions on issues into line with party identification rather than select their party to be consistent with their position on some given issue.(25) And, indeed, party identification is often a more powerful determinant of issue position than is political predisposition.

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(24) See (Appendix) Table 3.39

This seems to be the case with respect to university teachers' attitudes toward university expansion. There is a very marked difference on these questions among teachers who "generally support" different parties, as we see below.

Tables 3.23-24 Attitudes Toward Expansion of University System by Party Support

3.23 Expand University System	Labour	Cons.	Lib.	None
		Party Support		
Double	38	18	24	28
50%	41	35	47	40
25% or less	21	47	29	33
N	(520)	(448)	(184)	(101)

3.24 Recommended Proportion of the Age Grade	Labour	Cons.	Lib.	None
		Party Support		
40%	10	3	4	9
30%	9	5	7	6
20%	44	37	39	32
Less than 20%	37	55	49	54
N	(509)	(444)	(180)	(104)

Moreover, as we would expect, there is a close, though far from perfect, relation between party support and political position (Table 3.25).

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(25) See, for example, Angus Campbell and others, The American Voter, New York, John Wiley, 1960: esp. chapter VI, pp. 168-187.

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Table 3.25 Political Position by Party Support (per cent) [26]

Political Position	Labour	Conservative	Liberal	None
	Party Support			
Far Left	10	0	1	2
Mod. Left	83	8	53	43
Center	6	41	40	46
Mod. Right	1	49	6	8
Far Right	-	2	0	1
N	(534)	(454)	(182)	(96)

Labour supporters are heavily concentrated on the Left, Conservatives divided between the Center and Right, and Liberals between the Center and the Moderate Left.

However, when we look at the distribution of attitudes toward expansion by party support, controlling for political position, we find that while differences still obtain between the party supporters, they are much reduced within any given category of political position. We show this in Tables 3.26 and 3.27 only for the Moderate Left and Center, where we have a sufficient number of cases in the several categories of party support.

Table 3.26 Attitudes Toward Expansion of the University System by Party Support Within Categories of Political Position (per cent)

Expand University System	Labour	Conservative	Liberal	None
	Moderate Left			
Double	36	33	28	39
25% or less	21	42	29	22
N	(429)	(36)	(97)	(36)
	Center			
Double	28	23	19	19
25% or less	31	37	28	42
N	(32)	(180)	(72)	(43)

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[26] cf. Table 3.17

Table 3.27

Recommended Proportion of Age Grade to Gain Higher Education by Party Support Within Categories of Political Position (per cent)

Recommended Proportion of Age Grade	Moderate Left			Center		
	Labour	Cons.	Lib.	Labour	Cons.	Lib.
Less than 20%	36	35	51	59	51	51
N	(419)	(37)	(95)	(32)	(179)	(71)

As we can see in both the above tables, Labour supporters are more likely to favor expansion than Conservatives even within a given political position, but the differences are much smaller than in Table 3.20 where political position is confounded with party support. If party support were a major determinant of attitudes toward university expansion we would expect these differences to persist undiminished even within categories of political position. That they are reduced tells us that this issue is not primarily a party issue, but is an element in the broad spectrum of social and political attitudes which are reflected in party support.

Political dispositions are related to attitudes toward expansion of every level and unit of higher education. We have already seen this with respect to expansion of student places overall, and of the teacher's own subject. We also find Left-Right dispositions strongly related to the teacher's feelings about the size of his university and department

Tables 3.28-29 Feelings Regarding the Size of Own Department and University, by Political Position (per cent)

		Political Position			
3.28	Size of Own University	Far Left	Mod. Left	Center	Right
	Too big	20	22	26	25
	About right	31	41	43	54
	Too small	49	37	31	21
	N	(59)	(638)	(368)	(257)
3.29	Size of Own Department				
	Too big	5	5	4	8
	About right	37	47	50	57
	Too small	58	48	46	35
	N	(59)	(627)	(360)	(250)

Where almost half of the men of the Far Left believe their universities are too small, only about one in five of men on the Right think likewise. And differences in feelings about the size of their departments vary similarly between men of different political disposition, though at all political positions more teachers think their departments are too small than their universities. Men of the Left are not disproportionately concentrated in small universities or departments. Rather, their political dispositions lead them to favor larger educational units, as well as a larger educational system, and against those sentiments their present institutions are more likely to seem too small.

Political position and granting university status to CATs

Earlier we observed that granting university status to CATs was a special test of expansionist sentiments, since it was the kind of expansion that had little or no effect on the quality of students admitted to or graduated from the other universities, and therefore could not be linked to a deterioration of student quality. Nevertheless, as we showed (p. 24) there was a very strong relation between support for upgrading the CATs and support for increasing the number of university places. The relation of this aspect of "restrictionist" values to political dispositions can be seen clearly in the Table below.

Table 3.30 Support for Granting CATs University Status by Political Position (per cent)

Should CATs Be Given University Status?	Political Position Far Left	Mod. Left	Center	Right
Yes	85	81	67	50
No	15	19	33	50
N	(60)	(613)	(357)	(244)

Where granting university status to the CATs was supported by over 80% of the Left (and there was very little difference between the Far Left and the Moderate Left on this issue), the Right divided almost exactly in half on the question. (Among the tiny group on the Far Right, only a quarter supported giving CATs university status.) Here is clear evidence of the connection between restrictionist sentiments and conservative political views, with the element of the effect of expansion on student quality largely absent. The objection to the CATs, as we noted earlier, was largely on traditional grounds, having to do with the supposed "non-vocational" character of "liberal studies," and the dilution and adulteration of the meaning of the university degree if it were granted to technologists.(27)

If there is an ideological component in attitudes toward university expansion, as the strong relationships of these attitudes with political disposition suggest, then we should find these relationships strongest among those most interested in politics (Table 3.31).

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(27) As examples we might quote from the pilot interviews:

An economist at a small redbrick university: "...I belong to the, shall we call it, depth school--that a university is a place where one has an unique opportunity...to think, to really probe deeply--and, therefore, I am against technologies being taught vocationally. I'm not sympathetic to the vocational idea of a university." ("Would you want to see expansion take place?") "Not if it meant that the idea of a university was going to change, no. I would prefer to see separate institutions."

Or, an economist at London: "I have....thought sometimes that there are already people at a university for whom a university education is rather a waste. I think...some...come just in order to get a degree to get promotion and a higher salary....they aren't living a kind of university life....under the universities [there should be] a very strong sort of technical institute level of things where they could get all the technical skills that a country like this wants."

Or, a lawyer at London: "To have pressures built up to hand out degrees of a very much lower standard to a lot of people who couldn't possibly get them now would be a rather unsatisfactory state of affairs." (But this man was prepared to see degrees given to graduates from CATs.)

Table 3.31 Attitudes Toward University Expansion by Political Position, Within Categories of Political Interest (per cent)

	Political Interest											
	Extremely Interested			Moderately Interested			Only Slightly Interested			Not Interested		
Expand System	Left	Center	Right	Left	Center	Right	Left	Center	Right	Left	Center	Right
Double	50	41	25	33	21	7	30	17	21	21	12	5
50%	37	35	19	43	48	40	36	42	22	50	38	45
25% or Less	13	24	56	24	31	53	34	42	58	29	50	50
N	(187)	(34)	(16)	(381)	(189)	(145)	(111)	(113)	(73)	(14)	(34)	(20)

As we see in Table 3.31, the relationship between support for a significant expansion of university places and political position is strongest among these "extremely interested" in politics. If we look at the figures closely, we can note that among those on the Left and Center, interest in politics "activates" their general political dispositions and makes them more relevant to the issue of university expansion; while, by contrast, among the men of the Right (whose attitudes toward university expansion we might suggest are more "traditional" than "political") there are no appreciable differences in their attitudes toward expansion between those interested in politics and those who are less so.

The combined effect of political position and apprehension of the effect of expansion on quality on attitudes toward expansion

We have shown above that those who have experienced, or anticipate, a decline in the quality of their students, which they associate with university expansion, are much less likely to support significant expansion than those who see expansion either as having no appreciable effect on student quality or as serving to raise it. We have also seen the marked relation of attitudes toward expansion with political dispositions. And further, we have seen that these apprehensions of the effects of expansion on quality are also sharply related to political positions. We now want to consider the joint influence of these perceptions and orientations as they together bear on attitudes toward expansion.

There are several possibilities here. Political position might bear on attitudes toward expansion solely or primarily through its effect on apprehensions of effects on quality; e.g., conservatives may tend to have such a conception of quality that it is especially vulnerable to expansion. If that were the case the relation of expansion to political position would disappear (or be greatly diminished) when these apprehensions are controlled or "partialled out." Alternatively, and perhaps more plausibly, these conceptions, like the attitudes themselves, are shaped by political position; in that case, their relation to attitudes toward expansion would be diminished when political position is partialled out. Or third, it may be that political position influences attitudes toward expansion in part through their effect on apprehensions regarding expansion-quality, but also that both political positions and these apprehensions have their effect on these attitudes independently of each other.

The data (see Table 3.32) support the last of these hypotheses.

This Table shows the independent and cumulative relation of (1) political position and (2) apprehensions of effect of expansion on talent, on attitudes toward expansion of student places overall. Among the teachers on the Left who tend to believe expansion will on balance lead to an improvement of student quality, 79% support doubling numbers in a decade, 96% support expansion by 50% or more. By contrast of the men on the Right who are apprehensive of the effects of expansion, only 7% support doubling, and 37% an expansion of 50% or more. Nearly two thirds want to expand by less than 50% over the decade.(28)

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(28) For other attitudes related to politics and apprehension simultaneously, see (Appendix) Tables 3.40-42.

Table 3.32 Attitudes Toward University Expansion by Degree of Apprehension, Within Categories of Political Position (per cent)

	Political Position											
	Far Left			Mod. Left			Center			Right		
Expand the University System	Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.
Double	79	44	17*	56	25	15	38	17	5	28	10	7
	96	94	50	90	71	56	79	67	44	78	40	37
50%	18	50	33	35	46	41	41	50	38	50	30	30
25%	0	0	17	10	26	33	21	31	45	22	53	51
None	4	6	33	0	2	11	0	3	12	-	7	12
N	(28)	(18)	(6)	(218)	(285)	(80)	(110)	(160)	(78)	(40)	(131)	(67)

*The percentages in this column are reported only to fill out the table and allow independent manipulation of the numbers. No significance is attached to percentages based on six cases.

Another way of looking at this data is to ask: what categories of political position and apprehension supply the bulk of the teachers who favor doubling the system. These are, after all, the supporters of expansion of the university beyond the recommendations of Robbins; it is from them, presumably, that pressure from within the universities for further expansion will come. We want to know not only the size of this potential "ginger group," but its character and social composition as well.

Table 3.33 Ratio of Proportion of Expansionists to Proportions of Whole Sample in Categories of Apprehension and Political Position*

	Political Position											
	Far Left			Mod. Left			Center			Right		
	Not appr.	Somewhat appr.	Highly appr.	Not appr.	Somewhat appr.	Highly appr.	Not appr.	Somewhat appr.	Highly appr.	Not appr.	Somewhat appr.	Highly appr.
R	1.8	1.1	.42	1.4	.62	.35	.92	.42	.12	.67	.22	.17

* X_d = no. of doublers in category

$\sum X_d$ = no. of doublers in sample

N = no. of cases in category

$\sum N$ = no. of cases in sample

$$R = \frac{\frac{X_d}{\sum X_d}}{\frac{N}{\sum N}}$$

One way to do this is to compare the proportions a category supplies to the whole sample with the proportion it supplies to this group of "expansionists." Dividing the latter proportion by the former gives us an index number which measures the relative contribution of that category to the body of "expansionists" (or "doublers"). An index number of one means that the category supplies expansionists in the same proportion as its size within the whole sample; and an index number below one means that the category is underrepresented among the doublers, and contrariwise for the categories with index numbers of more than one. In Table 3.33 we see that the men on the Far Left who are not apprehensive about the effects of expansion on quality are twice as likely as average to support doubling. They, together with the Moderate Left who are not apprehensive, supply about half of the "expansionists" though only comprising about a quarter of the whole sample.

But while the men of the extremes of politics and apprehension are pretty largely in the expansionist or restrictionist camps, there remain large groups in the middle of both variables whose attitudes cannot be explained by reference to their positions on those variables. For example (in Table 3.32), of men in the Center who are "somewhat apprehensive," about two thirds support expansion of 50% or more, another third oppose that much growth. Of men in the same political position, but who are "not apprehensive" of the effects of expansion on student quality, about three quarters support significant expansion. But how do these men differ from those in the same political and apprehension categories who do not support expansion? Clearly, we must look further to explain more.

The apprehension of British academics regarding expansion--of the system, their own subjects, their departments and universities--is, we suggest, a fear of the future. And what is feared is not "a deterioration in the quality of my students" so much as the unknown problems that significant expansion may bring with it. To many British academic men, expansion is the source of threat, of unanticipated and undesired consequences, of dangers, rather than of challenge and opportunity.

The fear of the future, if we are right, is one reflection of a central quality of British society just now, which shows itself more widely as a fear of modernization, automation, immigration, Americanization, of all sorts of processes which have unknown outcomes. The British, including the academic community, will accept "reforms" if they believe they know or can foresee the controlled extent and consequences of change. The society in this sense is cautious, and exhibits the characteristic psychological stance and mood of an economy of scarcity. This, I think, is what it means to call it a deeply conservative society; the extraordinary wariness and resistance to large scale expansion of the system of higher education on the part of the academics is one aspect of this mood and stance.

CHAPTER IV

TEACHING AND RESEARCH ORIENTATIONS

I: INSTITUTIONAL DETERMINANTS

The tension between teaching and research is a central problem in modern universities. The tension arises out of differences among academic men over the relative importance of the two core functions of universities--the transmission and the creation of knowledge. The arguments, which start with strongly held beliefs about the primacy of university functions, also raise issues regarding the right allocation of resources, the needs of the student and of the state, the relative importance of post-graduate versus undergraduate education, the proper size of institutions, and the balance of subjects in the university and the curriculum. Behind these arguments are the academic men and the differing ways they define the academic role for themselves.

In this section we shall look at the orientations of our university teachers toward their two central activities of teaching and research. Clearly we must pass on to the reader a caveat that is frequently entered by our respondents: the bulk of academic men believe, in principle, that the academic role should involve both teaching and research. Indeed, the most common response to the question "which" is the answer "both." But this evades the problem rather than answers it. Choices frequently must be made, and the question arises, for individuals as for departments, universities, and systems of higher education, what relative emphasis should be placed on these activities which compete for time, energy and money.

In this and the following chapters, we shall be seeing how British academic men answer this question. First, we shall simply report the responses of our sample of university teachers to questions about their own preferences as between teaching and research; next, some crude indicators of the range of their variation in their research activity, as indicated by the quantitative production of books and scholarly articles. Then we shall report their views on the importance of research activity for the role of an academic man. We will then want to see the relation, if any, among these aspects of "research orientations."

But our major interest is not primarily in a descriptive account of the distribution of research interests, but in an analytical exploration of (i) the characteristics of men who are more interested in research than teaching (and the other way around); (ii) their location within the university system and its structure of grades and subjects; and (iii) the relation of research or teaching orientations to other values and attitudes held by academic men--their attitudes toward expansion, the power and status of professors and other current or perennial issues of university life. The tension between teaching and research is a major cleavage in university life. But precisely because universities (unlike research institutes or American liberal arts colleges) exist to serve both functions, it is important that these conflicts be contained and continually compromised. We are interested in seeing how the conflicting demands of research and teaching are "resolved"--by the academic men themselves and also by the university system, which deals with the conflict in part through a rough division of labor, concentrating research activities in certain fields of study, certain ranks, certain universities. Finally, we may want, on the basis of our evidence, to speculate regarding trends in the research orientation and activities of university teachers, as the system grows, and changes its functions and the balance of studies within it.

In this chapter, then, we shall describe the teaching and research orientation of British academic men, as this is revealed both by their expressed attitudes and by their research work. We will then look more closely at the distribution of these orientations within the university system and the academic profession, in its several subject areas, university groups and hierarchical levels.

In the next chapter we shall pursue our inquiries into the sources of research and teaching orientations in the social and educational biographies of university teachers, and in the rewards and difficulties they experience in their teaching and research. We shall also try to illuminate these orientations by exploring their relation to other attitudes held by academic men toward British education and their own academic environments.

Reported research activity

Early in the questionnaire our respondents were simply asked (Q17) "Do your own interests lie primarily in teaching or research?" We shall begin by reporting answers to this question, which should provide a fairly clear indication of how the university teachers see themselves. The question was of course framed in terms of their interest or preference, and so need not necessarily reflect either what they in fact do, or what they believe that they should be doing; how far these are related is a question for exploration.

Table 4.1 Interest in Teaching or Research

	Per Cent Answering
Very heavily in research	10
In both, leaning toward research	54
In both, leaning toward teaching*	36
Total	(1368)

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*Owing to a printing error, the fourth possibility "Very heavily in teaching" was omitted from the main university questionnaire.

We find that roughly one third express a preference for teaching as their primary interest in academic life; but of the remaining two thirds only 10% describe themselves as interested in research almost to the exclusion of teaching, and more than half describe themselves as interested in both but leaning towards research; again, this perhaps evades the question, as a "leaning" may perhaps be slight enough to be no more than a bow in the direction of creative scholarship. Without further analysis it is not easy to learn much from this question.

A more immediately revealing indicator of research activity is actual publication of research work. We asked two questions on this topic, first, on the number of articles published and, secondly, on the number of books. There are very few topics that do not allow of at least preliminary publication of journal articles, and this therefore we take as the most important measure of research work done during a teacher's lifetime.

Table 4.2 Number of Academic Articles Published (per cent)

None	7
1 to 4	22
5 to 10*	23
10* to 20	20
more than 20	27
Total	(1404)

Nearly half our sample, therefore, have published more than 10 articles, and the median would be around 9. Only 7% have never published any. Of those who had published articles, 79% had done so in 1963 or 1964, the years immediately prior to the survey, and only 6% had not published since 1960 or earlier.

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*These two categories overlap: but they were offered to respondents as approximate groups, and not coded from precise numbers given by respondents.

It is clear that the number of university teachers whose lack of interest in research has led them not to publish at all is very small.(1)

The question of book publication is rather more problematic. Many scientists, for example, never find it necessary to publish books at all, since their research is often compressible into a series of articles, which have a much quicker production time and reach their fairly small audience efficiently and cheaply. Indeed the relationship between book and article publication is quite different in different faculties.(2) Moreover, many books that are published in scientific fields are textbooks for teaching purposes, which grow out of lecture notes compiled for teaching as much as from original research. It is with these qualifications that we present the next table.

Table 4.3 Number of Books Published (per cent)

None	65
1	18
2	7
3	3
4	2
5	1
6 or more	3
Total	(1405)

Almost two thirds of our sample, therefore, have never published a book; while of the remainder roughly half have published one book only and the other half more than one. It is noteworthy, however, that exactly half the sample said that they were presently preparing a book for publication: and exactly half of these had not yet published a book.

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(1) For a discussion of productivity among American academic men, see L. W. Hargens and Warren O. Hagstrom, "Sponsored and Contest Mobility of American Academic Scientists," Sociology of Education, (40) 1967, and the literature cited there.

(2) See (Appendix) Table 4.34.

We referred earlier to the three questions with which we have to deal in this context: namely, the preferences of academic men, their actual behavior, and lastly their feelings as to what they should be doing, their conception of what defines the role of an academic man. Among a series of statements with which they were asked to agree or disagree was the following (Q.49(i)): "An academic man's first loyalty should be to research in his discipline. The teaching of students and the running of his university should be second to this first duty of an academic career." We saw above (Table 4.1) that the majority of university men expressed a preference for research as against teaching. We might expect therefore that a majority would similarly agree with this statement. In fact only 4% can agree without reservations, and just over one third agree at all (compared with two thirds who expressed a personal preference for research (Table 4.1). And 22% find it impossible to accept the statement at all. This suggests that there may be a conflict between men's personal preferences and their sense of what their duty as academic men requires. This is a question to be explored further.

Table 4.4 Research as First Duty (per cent)

Strongly agree	4
Agree with reservations	31
Disagree with reservations	43
Strongly disagree	22
Total	(1372)

Before we go on, it will be useful to explore the relationship among our various indicators of research orientations. How far does an expressed preference for teaching materialize in low research output? Do those with very large numbers of articles published show far greater interest in research? It is these questions that the next table helps to answer.

Table 4.5 Number of Articles Published, by Preference for Teaching or Research (per cent)

	Interest					
Number of Articles	Heavily in Research		Both, Leaning to Research		Both, Leaning to Teaching	
None	1	16	4	22	13	42
1-4	15		18		29	
5-10	18		22		26	
10-20	24	68	22	57	17	32
More than 20	44		35		15	
Totals	(131)		(720)		(491)	

The relationship is very strong. Of those who describe their interests as heavily in research, 68%, or over two thirds, have published more than 10 articles, and nearly half over 20. Of those who lean toward teaching, on the other hand, just under one third have published more than 10 articles, and only 15% more than 20. Evidently the way our sample describe themselves reflects quite substantially their actual behavior measured by publication of their research.

There is one obvious disadvantage to using the production of articles as an indicator of research activity: clearly age will drastically affect its usefulness. It is difficult for a 23-year-old Assistant Lecturer, however research-minded, to have published more than one or two articles, whereas even a highly teaching-oriented 50-year-old Senior Lecturer has probably published one or two. This becomes clear on an examination of Tables 4.6 and 4.7

Table 4.6 Number of Articles Published, by Age (per cent)

	Age									
Number of Articles	Under 30		30-34		35-39		40-44		45 and over	
0	12	57	8	35	7	26	4	18	5	17
1-4	45		27		19		14		12	
5-10	29		27		24		18		19	
10-20	12	14	21	36	25	50	27	65	17	65
over 20	2		15		25		38		48	
Totals	(230)		(262)		(291)		(197)		(398)	

In Table 4.6 we see how age affects publication. Of those under 30, almost three fifths have published less than five articles; but after age 45 less than one fifth have published so few. At the other end of the table, the proportion who have published more than 10 increases from 14% to 65% by the time they have reached the early forties. At this point, however, the proportion who have published more than 10 stops increasing; but there is still a shift up to the group who have published more than 20. This suggests that by this age academic men have settled whether they are to be researchers or not; the researchers go on publishing while the rest write no more articles. This is a matter, however, that can be examined more directly by looking at the increase in publication with age, using the preferences which our sample expressed for teaching and research.

Table 4.7 (on the next page) is striking in its demonstration of how the potential for research, as expressed in the preferences of the youngest members of our sample, is apparent even below 30; there is a sharp difference between researchers and teachers even in the first age group. But as these men grow older, the potential becomes actualized in their research output;

Table 4.7 Number of Articles Published, by Preference for Teaching or Research, within Age Categories (per cent)

	Under 30			30-34			35-39			40-44			45 and over		
	High Re-search	Lean Re-search	Lean Teach-ing	High Re-search	Lean Re-search	Lean Teach-ing	High Re-search	Lean Re-search	Lean Teach-ing	High Re-search	Lean Re-search	Lean Teach-ing	High Re-search	Lean Re-search	Lean Teach-ing
0	3 }43	10 }50	26 }76	0 }12	3 }33	18 }49	0 }12	3 }13	17 }52	0 }0	1 }8	9 }38	0 }0	2 }6	8 }27
1-4	40	40	50	12	30	31	12	10	35	0	7	29	0	4	19
5-10	27	35	19	31	26	31	16	26	23	9	12	31	0	13	27
10-20	23 }30	13 }14	6 }6	35 }58	22 }41	15 }20	31 }72	28 }62	17 }25	17 }91	35 }81	16 }31	5 }100	14 }82	20 }46
20+	7	1	0	23	19	5	41	34	8	74	46	15	95	68	26
Totals	(30)	(136)	(54)	(26)	(149)	(80)	(32)	(155)	(96)	(23)	(103)	(68)	(19)	(176)	(192)

and the difference between researchers and teachers becomes increasingly sharp for every succeeding age category.(3)

Lastly, we should examine the relation between our teachers' own preferences and their conception of the essential academic role.

Table 4.8 Research as First Duty by Preference for Research/Teaching (per cent)

	Interest					
Research as First Duty	Very Heavily in Research		Both, but Lean Toward Research		Both, but Lean Toward Teaching	
Strongly agree	15	63	5	47	1	12
Agree with reservations	48		42		11	
Disagree with reservations	29	37	38	53	53	88
Strongly disagree	8		15		35	
Totals	(132)		(710)		(492)	

This relationship is also very strong; almost two thirds of the "heavy researchers" agree, with or without reservations, that research should be the first duty of an academic man, as against 12% of those who lean toward teaching. Perhaps it is not surprising that men's preferences and their conceptions of the role are so strongly related. And we will be using that relationship to define and construct an index of "orientations toward researching and teaching," in which the man's conception of the role and his own preferences for one of the other of its major components will weigh equally. This index, described in detail in the Appendix, consists of five possible positions. Those appearing at one extreme, "very high research" orientation, gave their own preference as "very heavily in research" and agreed that "an academic man's first duty is to research." Those at the other extreme, "very high teaching" orientation, gave as their preference "leaning toward teaching," and strongly disagreed with the conception of the basic academic duty as research. In between fall those who gave a consistent middle position, and those whose personal preference did not altogether accord with their conception of the academic role.(4)

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(3) This can be seen most clearly if we examine the maximum percentage difference for each age group. This is found at 5 or more articles for the under 30 and 30-34 group, at 10 or more articles for the 35-39 and 40-44 groups, and more than 20 articles for the 45 and over group. The percentage differences between "heavy researchers" and "teachers" then read 33%, 37%, 47%, 60%, and 69%. The categories of researchers and teachers become steadily more distinguishable by their research output.

The institutional location of teachers and researchers

Having described the overall attitudes of British university men to research and teaching, we shall now try to show how these sentiments are distributed within the university system. Throughout the study we have located academic men within the structure of British universities in three ways. The first of these is the kind of university in which they work. Despite the apparent similarity of all British universities compared with a pluralistic higher education system like that of the United States--a similarity that arises out of common modes of funding, of degree standards, of recruitment of staff and students, etc.--there are important differences among the forty-five universities in England, Scotland and Wales. These derive partly from the historical circumstances which led to their establishment, partly from their somewhat different social and educational recruitment (within the relatively narrow population catered to by British universities), and also from sometimes explicit differences in educational aims and methods. Obviously it is not possible to characterize some 45 different institutions individually, and for the purpose of this analysis we shall use the groupings described in chapter I. This is, of course, not to deny the possibility of large variations within these groups; at present we only suggest that differences between groups are more revealing.

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(4) While for many purposes it will be useful to assign the "deviant" cases--men who prefer research but do not see it as the academic man's "first duty" and men who lean toward teaching but agree that research is the prime duty--to an intermediate position on the index, we will at later points be interested in these men who hold what appear to be conflicting perspectives and attitudes, and where they are found in the university system.

To take them in order, Oxford and Cambridge still have a prestige that is based as much on intensive undergraduate teaching and excellent facilities for research as on ancient connections with wealth and power. London and the large redbrick universities also, by virtue of their size alone, have better than average facilities for research. Scotland's universities represent a very old tradition that stressed something nearer equal opportunities for higher education than has been accepted in England and Wales until recently, though their teaching methods have traditionally resembled Continental universities more than their English contemporaries. Wales and the "minor redbrick" group are small and either new or slow-growing institutions which evidently cannot and perhaps have not wished to support a large research effort. The one "new" university in our sample, Sussex, in its early stages took the improvement of undergraduate teaching as its primary mission; the Colleges of Advanced Technology, despite their chief subjects which seem to demand research, at the time of our survey had very recently been technical teaching institutions with little opportunity for research. They are now moving up to university status, which would at least allow, if not demand, more research-oriented men on the staff and more time allotted to research. Our survey, done shortly after the decision to elevate the CATs, might reflect changes in the climate in those institutions, but not yet major changes of substance.

Table 4.9 presents our findings regarding the distribution of teaching and research preferences among academic men in different university groups.(5)

Table 4.9 Preference for Teaching or Research, by University Group (per cent)

Interest	Ox-bridge	London	Major Red-brick	Minor Red-brick	Scot-land	Wales	Sussex	CAT
Very heavily in research	17	12	11	3	9	5	11	6
Both, but lean toward research	54	51	56	51	52	57	51	42
Both, but lean toward teaching	29	37	33	46	39	37	38 { 34	52 { 37
Very heavily in teaching	-------------category omitted-------------						4	15
Totals	(156)	(233)	(462)	(140)	(243)	(116)	(134)	(376)

As far as preference for research goes (looking at the top line of the table) the results are roughly in line with our expectations. Oxford and Cambridge contain a notably higher number of men with a strong preference for research; the former CATs and the minor redbricks show distinctly higher proportions of men oriented toward teaching, while the differences among the other university groups are small or negligible. It is interesting that Oxbridge, despite its teaching reputation, shows the highest proportion of men whose preference lies toward research. Evidently for most Oxbridge faculty teaching is not the primary attraction of their posts, despite the emphasis placed onit there. It may be that a different picture will emerge when we examine other variables, notably subject taught: for it is in the arts and social sciences that particular stress is laid at Oxbridge on the tutorial system, and there may be a sharp division between members of these faculties and teachers in science. We shall examine this question shortly.

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(5) It should be noted that the last response category "very heavily in teaching" was accidentally left off the main questionnaire, but was replaced for the CATs and Sussex. These groups are therefore not strictly comparable with the rest. However, the very small number at Sussex--which emphasizes teaching--who chose that category suggests that the distribution among the main sample would not have been greatly affected by its inclusion.

But more impressive than these relatively small variations is the striking similarity in the distributions among the broad university categories. The recent CATs aside, Table 4.9 is evidence that we are dealing with a common profession, whose practitioners differ among themselves, but who are rather uniformly distributed among the several institutions that make up the British university system. Differences in the research climates between specific universities there certainly are, as we will show later, and these differences do have consequences for the research activity at those institutions. But those differences do not coincide with the historical, organizational, and geographical differences caught up in our broad categories of university groups. We can see this even more clearly when we turn from the question of preferences for research or teaching to the question of how academic men in these groups of universities conceive of the academic role. Table 4.10 shows the distribution of agreement with the statement: "An academic man's first duty is to research in his discipline."

Table 4.10 Conception of Academic Role, by University Group (per cent)

	University Group							
An Academic Man's First Duty is to Research....	Oxbridge	London	Major Redbrick	Minor Redbrick	Scotland	Wales	Sussex	CATs
Strongly agree	5	5	4	1	5	6	3	2
	}37	}38	}38	}29	}32	}32	}44	}20
Agree with reservations	32	33	34	28	27	26	41	18
Disagree with reservations	42	43	42	45	43	46	42	42
Strongly disagree	20	19	20	27	24	23	13	38
Totals	(154)	(235)	(463)	(145)	(242)	(116)	(134)	(379)

Again, with the exception of the recent CATs, we find remarkably small differences among the university groups. These differences are somewhat magnified through the use of the index of research orientations, which combines preferences and role conceptions; the differences, though still not very large, are much in accord with our expectations (the former CATs, Wales and minor redbrick universities showing somewhat smaller proportions of research-oriented staff).

Table 4.11 Research Orientation (index)(6) by University Group (per cent)

Research Orientation		University Group							
		Ox-bridge	London	Major Red-brick	Minor Red-brick	Scot-land	Wales	Sussex	CATs
(Research)	1	8	8	7	2	5	4	9	3
		40	36	36	29	32	27	44	18
	2	32	28	29	27	27	23	35	15
	3	28	26	26	19	24	32	18	25
	4	20	25	29	31	29	25	25	32
		31	38	38	52	44	40	35	58
(Teaching)	5	11	13	9	21	15	15	10	26
Totals		(148)	(228)	(451)	(140)	(236)	(114)	(119)	(373)

It is when we turn to research output and activity, rather than attitudes and orientations, that differences among the major categories of British universities become striking.

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(6) The index of research orientation is here presented in five categories, as it was computed. It will, however, be shown only in three parts hereafter. The reader should note the rough proportions in the extreme categories, which will not appear later.

Table 4.12 Production of Articles, by University Group (per cent)

	University Group															
Number of Articles	Oxbridge		London		Major Redbrick		Minor Redbrick		Scotland		Wales		Sussex		CATs	
0	8	24	4	20	6	28	6	36	11	33	7	33	15	48	35	72
1-5	16		16		22		30		22		26		33		37	
5-10	14		18		26		27		26		21		26		17	
10-20	23	62	29	62	19	45	17	37	16	40	17	46	16	26	5	11
20 and over	39		33		26		20		24		29		10		6	
Totals	(159)		(231)		(465)		(145)		(247)		(116)		(134)		(381)	

If we look first at the production of scholarly or scientific articles, we see that over three fifths of the men at Oxbridge and London have published ten or more pieces, as compared with only about one in ten of the men at the former CATs, a quarter at Sussex, and little more than a third of the staff of the minor redbrick universities. In part this may be a function of the larger concentrations of older men at Oxbridge and London, and of younger men at Sussex (and this of course we will want to examine later). But it surely also reflects differences in the research climates of these several kinds of institutions, and in the variations in the necessary time and facilities (laboratories, research libraries, and other resources) among them. These variations, in turn, affect not only how much research men in them do, but also the kinds of men they recruit and retain. These research traditions and resources shape recruitment and retention patterns, which in turn reinforce research climates at these kinds of universities. We can see variations reflected in the teachers' reports of the amount of research activity they feel able to carry on during the term.

Table 4.13 Research Activity During Term, by University Group (per cent)

Research Carried on During Term	Ox-bridge	London	Major Red-brick	Minor Red-brick	Scot-land	Wales	Sussex	CATs
A substantial part	25	32	27	14	26	17	15	17
Some of it	46	50	44	50	45	51	48	46
None of it	29	18	30	36	29	32	36	37
Totals	(159)	(225)	(464)	(145)	(246)	(114)	(134)	(361)

The results here are interestingly different from our findings above. Londoners are notably unimpeded by the other commitments of term-time: only one fifth of them are able to do no research in term, and more of them than any other group say that they can do a "substantial part" of it. This accords well with their high research output. At the other end of the scale, men at the minor redbricks do noticeably less research during term; this may be partly due to their small size,(7) which does not allow for many "research men" who can opt out of most teaching or administration (we suspect that these are especially common at London): it may also be due more simply to the fact that, as evidenced by their own preferences, there are less men here who want to do research. The same comments would apply to a lesser extent to Wales. But in the middle, and clearly different from the others, fall the three remaining groups, Oxbridge, Scotland and the major redbricks. Here, we suspect, are men whose commitment to research, as evidenced by their expressed preferences and their production of articles, is strong, but who are unable to do their research (or any substantial amount of it) because of their other commitments. This may be an example of an uncomfortable tension that is felt, as we suggested earlier, not only by the university system and its institutions, but by individual members themselves. We shall return to this point later on.

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(7) Sussex and the CATs were small at the time of our survey, and the same comment would apply here.

University rank and research orientations

The broad differences in function between the ranks in British universities have already been discussed in Chapter II. To recapitulate briefly, Professors are the senior members of departments, appointed on the basis of academic distinction. There is usually only one Professor to a department. Not only are they regarded as the intellectual leaders, but they are also almost always in charge of departmental administration. In 1961/2, 80% of Professors were chairmen of their departments.(8) In many cases, therefore, while it is generally research activity that has brought them to their present position, they often find that their other duties prevent them from further research during term at least. The two other senior ranks, of Reader and Senior Lecturer, have near-parity in pay and prestige; in most universities they are distinguished by their primary function. Generally, Readers are given a light teaching load, and are enabled and expected to carry on with their research work, while Senior Lecturers are appointed to pay particular attention to their department's teaching. (But there is considerable variation in the definitions of these roles among universities and departments.) The Lecturer is the main grade of university men (47% of faculty members were Lecturers in 1961/2)(9) and there is no formal differentiation of function at this stage. Finally, the Assistant Lecturer is a probationary grade, occupied by men for not more than the first three years of their academic career. We expect to find, then, that Professors would show the highest research activity in the past, but that they might currently be less research oriented than Readers. We expect that both of these grades, however, should surpass all the others in research activity, while Senior Lecturers, who occupy the only explicitly teaching grade, will be markedly lower in research orientation and activity. Here, then is the distribution, for the different academic ranks, of scores on the index of research orientations.

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(8) Robbins: Appendix III, Part I, Table 13.

(9) Robbins: Appendix III, Part I, Table 11.

Table 4.14 Index of Research-Orientation, by Rank (per cent)

Research Orientation	Professor	Reader	Senior Lecturer	Lecturer	Others[10]
Research primarily	33	42	27	35	40
Both	35	28	25	23	26
Teaching primarily	32	29	48	43	34
Totals	(187)	(121)	(206)	(706)	(109)

On the whole our expectations are borne out: Readers are on average the most research-oriented members of the academic community, and the least teaching-oriented. Where 42% of the Readers stress the academic man's research role and only 29% his teaching role, the figures are roughly reversed among Senior Lecturers. The somewhat surprisingly small proportion of research-oriented Professors may well be a function of their other responsibilities--as we shall see, it certainly does not reflect a low level of research activity in the past. The Lecturers cover a broad range of age and research involvement: we will want to see whether their rather heterogeneous distribution conceals two alternative career lines, one for teachers leading to the Senior Lecturer grade, the other for researchers leading to a Readership and possibly a Professorship.

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(10) All junior grades, including Assistant Lecturers, Demonstrators, research posts, etc.

We gain a somewhat clearer sense of the relation of rank to research and teaching when we look at the actual research activity of the men in our sample, first over their whole career, as shown by their production of scholarly articles, and then their current research activity, at least during term.

Table 4.15 Number of Academic Articles, by University Rank (per cent)

Number of articles	Professors		Readers		Senior Lecturer		Lecturer		Others	
0	1		0		1		9		20	
1-5	1	10	2	15	14	40	30	67	40	82
5-10	8		13		25		28		22	
10-20	19		29		24		20		7	
over 20	71		56		35		12		11	
Totals	(190)		(125)		(216)		(730)		(114)	

Although we saw above that Readers are currently more research-oriented than Professors, and that there are more research-minded Lecturers than Senior Lecturers, Table 4.15 shows that their past research activity does not altogether reflect their present orientations. It turns out that the rank order of cumulative research productivity corresponds to the official order of academic ranks. Professors have published more than Readers, and Senior Lecturers more than Lecturers. This is doubtless partly a result of age differences between the various ranks (which we shall examine later): for example, some Lecturers have certainly been more active in research for a shorter time than Senior Lecturers. But it is also clear that the ranks are not so sharply differentiated in function. We suggested above that there may be two alternative career lines, one for teachers, which generally ends at the Senior Lecturer grade, and one for researchers, which leads to

Readerships and often Professorships. This may be the case to some extent; but even the Senior Lecturers as a group did not define themselves so thoroughly (or so early) as teachers to prevent them from publishing more than Lecturers. Moreover, the functional distinction between Readers and Senior Lecturers that we spoke of, while valid in many circumstances, is by no means universal throughout the British university system. There are many research-oriented Senior Lecturers who have been promoted to that rank in recognition of their research accomplishments in a situation where no Readership was available.

It is at least worth raising the question whether the formal and informal differentiation of function between Readers and Senior Lecturers is becoming more or less pronounced at the present time. The existence of these two ranks has been a way of institutionalizing the division of labor between research and teaching in some departments and universities. It will make a great deal of difference to the organization and character of British universities if these roles are more sharply differentiated in the future, or if, as seems to be occurring in some places, the Senior Lectureship is also becoming a form of recognition for research accomplishment when it is available. It is perfectly possible for the research and teaching roles to become more sharply differentiated without their being institutionalized in different ranks. In the United States that institutionalization has come about through the development of research institutes and centers, with which researchers on a faculty become identified. The very great primacy of research over the teaching function in most larger American universities threatens every effort to formalize the role of "teacher" with the stigma of second-class citizenship and status: this in fact occurred with the creation of a teaching-oriented College at the University of Chicago manned by a faculty that was quite separate from the research-oriented members of the graduate departments and faculties. And that, in turn, immediately raises the problem of recruiting able men to a teaching role which carries this stigma. Similar problems are encountered by even the most distinguished liberal arts colleges, though the absence of a body of men primarily devoted to research on the same campus softens the invidious distinction. The much greater prestige (and resources) accorded teaching in British universities has allowed the emergence of senior ranks roughly identified with research or teaching which could reasonably claim a rough parity of prestige. But the apparent instability of this arrangement currently may, paradoxically, reflect the growing primacy of research over teaching in British universities as well. We suspect that instead of retaining the formal role differentiation in the form of different senior ranks, at the risk of one becoming distinctly subordinate to the other in status and attractiveness, the tendency will continue to be for researchers increasingly to capture the Senior Lectureships as well, since with the growing primacy of research (and post-graduate training) the need for more posts rewarding research distinction will probably grow faster than the number of Professorships and Readerships.

But at the moment this is highly speculative. What is more certain is that changes in the size and functions of the British university system will place strains on the existing conceptions of these ranks; conversely, their evolution should be a sensitive indicator of changes in the roles and functions of British academic men.

Let us return from these speculations to the findings of our survey. We have seen the extent of the difference in cumulative research production of men in the several academic ranks. Are these reflected in differences in their current research activity, or, as near as we can get to that, their current activity during term? The data,in Table 4.16 on this question show the very marked differences between the Readers (and the "Others")(11) compared with all the other ranks.

Table 4.16 Research During Term, by Academic Rank (per cent)

Research Done During Term	Professors	Readers	Senior Lecturers	Lecturers	Others
A substantial part	21	41	23	21	44
Some of it	44	46	44	49	38
None of it	34	13	32	30	18
Totals	(192)	(127)	(210)	(727)	(109)

The Professors, or most of them, have had to put their research behind them: they are, as a group, least able to do research during term, only one in five reporting himself able to do any substantial research during term. This is an interesting finding: it suggests that the organization of British universities is such that it takes its most productive research men, and, at the moment when it gives them the reward they have earned through their contributions to learning, effectively diverts a good part of their energies into other work, chiefly academic administration. The general problem is widely recognized, though our data give substance to our concern. The story is complicated by the fact that in subjects whose body of knowledge is growing very rapidly, the appointment to a Professorship may occur just about the time a man's ability to contribute to new knowledge is declining. A shift of role to scientific administration for such men may be an extremely fortunate way of employing their still active energies and experience. In addition, again more commonly in the sciences but increasingly, we suspect, in other areas as well, Chairs will be created that do not carry departmental administrative responsibilities; such "Research Professors" may well be able to carry on a full program of research work during term, thus avoiding the loss of their still creative contributions by their elevation. (This development is dependent on the increasing separation of the Professorship from the leadership of departments, a tendency warmly supported by a majority of academic men, as we shall see in Chapter VI). Nevertheless, the figures in Table 4.16 suggest that a considerable amount of research potential among Professors is currently inhibited by their other responsibilities; this is a high price to pay for the reluctance of British academic men to permit the growth of a separate and specialized non-academic administrative staff. But the burdens of academic administration grow exponentially with the growth of institutions. Either more Professors will in the future be able to do less research or teaching, or else the British universities will have to accept a measure of rationalization of their administrative machinery. But that also, as Americans know well, carries with it a variety of consequences for the character of universities, many of them very difficult to anticipate. Growth will place great strain on the forms of administration, and thus on the existing character of British universities. The inherent conservatism of British academic men, and especially their reluctance to set in train reforms which threaten large though incalculable changes in the basic character of their institutions, is likely to lead them to attempt to retain the essentially amateur Professorial forms of administration for as long as possible. But the growth both of student numbers and of research activity (with its new research organizations, large expenditures and ancillary personnel) will place, indeed is already placing, the traditional forms of university administration under very great strain.

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(11) Included in the category "Others" are specific full-time research posts, filled for the most part by young men, which account both for their high level of research activities and (as yet) low level of accomplishment.

Research orientation and subject taught

It is obvious from experience in the academic world--and our interviews confirm this--that the research-teaching dilemma is felt in all subjects in a university; it would doubtless be agreed that a subject in which no research remained to be done has little place in a university. But despite this we might expect differences in emphasis in different subjects. The arts subjects are the traditional center of liberal arts teaching in British universities, as elsewhere, and it is here if anywhere that we might expect to find the old dispute, of transmission versus cultivation of knowledge, resolved in favor of transmission. In the natural sciences new knowledge is being gathered so fast in our time that it is at least arguable that no one could be an adequate teacher unless he were also engaged in expanding the frontiers of his subject by his own research. Moreover, even at the undergraduate level the process of learning in the sciences is in large part both a training in how to do research and actual participation in it, while an undergraduate in an arts subject is more likely to be engaged at best in reinterpretation or reevaluation. We might expect, then, to find more research-oriented men in the sciences than in the arts. The same would presumably hold for the social sciences, another discipline very actively engaged in research at present, and most of all in technology, where--if anywhere--research must provide the subject's chief claim to be an academic discipline rather than a vocational training. Some of these assumptions, however, turn out to be rather surprisingly contradicted by the facts.

Table 4.17 Index of Research Orientation by Subject Taught (per cent)

Research Orientation	Arts	Social Science	Natural Science	Technology	Medicine
Research Primarily	36	23	38	29	46
Both	21	23	30	23	29
Teaching Primarily	41	54	31	48	25
Totals	(337)	(211)	(381)	(177)	(139)

We find that medicine is far the most research-oriented subject. This is perhaps not surprising; a very great part of medical research is, in fact, carried on in the teaching hospitals associated with university-based medical education. But, of the strictly academic subjects, natural science comes first, with 38% in the research-oriented category, closely followed by arts, with 36%. Technology is third, with 29%, and fourth social science, with 23%, just half as many as medicine. At the teaching end of the continuum the same order holds, but (after medicine) natural science is lowest, with 31% scored as "teachers"; arts shows 41%, technology 48%, and social science 54%. Although arts and natural science men have much the same proportion of research among them, there are noticeably more teachers in arts than in science. The "pull" of the subject in natural science is definitely towards research; in arts it is more ambivalent.

The findings on social science and technology are remarkable, compared with what we had anticipated. One possible explanation, which raises more questions than it answers, is that social scientists and technologists in British universities are simply not interested in research; this would, to say the least, make them rather odd members of the international academic community of scholars in their subjects. But we must remember that these are fairly new subjects to British universities: one consequence may be that their departments are relatively small, and hence that they have to devote a rather larger amount of time to teaching; we shall explore that question in a moment. The other possibility is that these subjects suffer from anxiety as to their status, and find it necessary to justify their existence inside a university: there is still a number of academic men in arts subjects who express doubts as to the intellectual value of subjects such as psychology and sociology, or even the longer-established economics, and in the sciences there are doubts about the acceptability of their claim to be called rigorous sciences as well. Similarly technology is at the wrong end of the value-loaded term "pure" science, and is sometimes seen as corrupted by its concern with immediate, "applied" problems. The academic men in these disciplines probably do not take these accusations very seriously, consciously at least, and they would ask only to be judged on the quality of work they produce. But reactions to such anxieties can take other less conscious forms, and one way of countering them, without compromising their conception of their subjects, would be to emphasize conformity to other norms of British academics as they see them. It is clear from our survey that most British academics in fact "lean towards research" (Table 4.1), although they do not on the whole agree that research is an academic man's first duty (Table 4.4). But it may still be that social scientists and technologists either do not realize this, or hope to appeal to criticism from more old-fashioned sources by an over-emphasis on the old-fashioned virtues of teaching. Moreover, disciplines that conceive of themselves in this way tend to confirm their character by recruiting men with similar conceptions of how the applied sciences (both physical and social sciences) should conduct themselves in a university.(12) Before speculating further, however, it would be as well to look at actual research activity in the various subjects. First, is the higher emphasis on teaching a matter merely of preferences and attitudes, or have social scientists and technologists, in fact, published less as well?

The research orientation of medicine is just as clear here: over half our sample of university teachers in that subject have published more than twenty articles, and only 9% fewer than 5. Natural scientists follow, with 37% over 20, and 20% fewer than 5 articles. Social scientists have almost exactly the same production as arts faculty members, 20% over 20 articles,

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(12) The high traditional status of medicine, the technology of the biological sciences, permits university teachers of medicine to define it as a research subject.

Table 4.18 Number of Articles Published, by Subject Taught (per cent)

Number of Articles	Arts		Social Science		Natural Science		Technology		Medicine	
0	11	37	12	37	2	20	9	41	2	9
1-5	26		25		18		32		7	
5-10	24		21		23		30		13	
10-20	19	39	22	42	20	57	16	29	25	77
over 20	20		20		37		13		52	
Totals	(353)		(215)		(404)		(178)		(141)	

and 37% under 5. Technologists, on the other hand, are distinctly lower in research output: only 13% have written more than 20 articles, and 41% 5 or less. Moreover, 71%, or nearly three quarters of our technologists, have published under 10 articles, and arts is their nearest rival, with 61%.

Lastly, we want to look at current research activity during term.

Table 4.19 Research During Term, by Subject Taught (per cent)

Research during term	Arts	Social Science	Natural Science	Technology	Medicine
A substantial part	13	13	32	21	59
Some of it	45	48	51	47	31
None of it	42	38	18	33	10
Totals	(351)	(219)	(406)	(174)	(130)

Still another picture emerges: once again medicine leads in doing research during term, for the reasons that we discussed earlier, and natural science is in second place. But technology comes third: 21% of technologists say they can do a substantial amount of their research during term. In the last place come social science and arts.

To sum up, medicine has a clear lead both in actual research activity and its preference for and emphasis on research, and natural science comes next. Both of these would largely accord with our expectations, at least as compared with arts faculty members. Social scientists and technologists are peculiar: they are significantly lower in their expressed preference for and approval of research activity; but social scientists have a comparatively high research output, while technologists, whose output is low, do not feel especially handicapped by other term-time commitments. The indications that academic men in technology are relatively less interested in research raise a whole series of questions about the place and the function of technology in modern Britain not only in the universities but throughout the society and economy. Do the best engineers (or the most research-minded, not to beg a relevant question) not take university jobs? It could be that those interested in research see it as essentially a full-time job, and are very unwilling to be distracted by teaching, which they may believe can be left to less distinguished or older men. Although the number of engineers and technologists trained in universities as opposed to on-job training is not very large in Britain,(13) this could have very important consequences for technological progress. It would be interesting to discover how much of the important research in technology that is now being produced in Britain is, in fact, done at universities, and how much at governmental research institutes or in private firms' research wings.(14)

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(13) Roughly a third of new-qualified men with engineering and technological qualifications in recent years gained their qualifications through a first degree in a university. Report on the 1965 Triennial Manpower Survey of Engineers, Technologists and Technical Supporting Staff, Cmnd. 3103, HMSO, London, October 1965. Table 1, p. 6.

(14) See the "Note on University Technologists" at the end of this chapter.

We have now looked at the variation in research orientations that is to be found in different sectors of the university system: we shall now try to narrow the field farther. For example, we have seen that among the ranks Readers are the most research-oriented, and Senior Lecturers the least; among the subjects, medicine is most research-oriented, and social science the least. We can now ask whether these differences hold at the same time: are there particular concentrations of teaching and research interests, the former in social science Senior Lecturers, the latter in Readers in medicine? Or if not there, where are the concentrations? Different subjects may have different views of the function of various ranks. Table 4.19A (on the next page) looks at research orientations broken by subject and rank simultaneously.

At first glance we can see that the two groups we selected above do show concentrations: 56% of Readers in medicine are "research-oriented" according to our three-part index, the largest percentage of all; the smallest proportion, 7%,is found among Senior Lecturers in social sciences. In some ways what is interesting about the table is the range: if we continue to look at research-oriented men (the top line of the table), there are two groups with over 50% in this category (both in medicine), six groups with 40-50%, eight with 30-40%, five with 20-30%, two with 10-20% (one being Professors of technology), and one under 10% (the Senior Lecturers in social science). Four fifths of the groups, in other words, have between 20 and 50% research-oriented men amongst them, or fall within a 30% range. The spread of teaching orientations, on the other hand, is somewhat wider. Two groups have over 60% in the teaching-oriented category (Senior Lecturers in social science and technology); three between 50 and 60%, seven 40-50%, five 30-40%, five 20-30%, one 10-20% (Readers in natural science), and one under 10% (Professors of medicine). Variations in commitment to teaching appear to be somewhat greater than those in commitment to research.

Table 4.19A Research Orientation by Subject and Rank (per cent)

Research Orientation	Arts					Social Science					Natural Science					Technology					Medicine				
	P	R	SL	L	O	P	R	SL	L	O	P	R	SL	L	O	P	R	SL	L	O	P	R	SL	L	O
Research	37	46	26	36	44	22	34	7	27	17	37	42	33	38	47	12	29	22	30	x	42	56	41	51	31
Both	33	21	26	18	14	26	33	24	19	30	33	39	25	31	29	44	24	15	23	x	50	20	31	14	46
Teaching	30	33	48	46	41	52	33	69	54	52	29	19	42	32	24	44	47	63	46	x	8	24	28	35	23
Totals	(60)	(24)	(27)	(195)	(29)	(31)	(15)	(29)	(113)	(23)	(45)	(36)	(72)	(193)	(34)	(16)	(17)	(27)	(112)	(5)	(26)	(25)	(32)	(43)	(13)

Key to column headings

P=Professor
R=Reader
SL=Senior Lecturer
L=Lecturer
O=Other

But, insofar as there are concentrations, where are they found? If we look again at the top line, research orientations, we can see, first, that in every subject the Readers score highest, with the exception of technology, where Lecturers are as high. In arts, social science, and natural science, Senior Lecturers are lowest; in medicine they are lowest except for the 13 "others"; in technology, curiously enough, Professors are lowest. One wonders if the lack of emphasis on research in technology results in Professors being appointed on other grounds than their research achievement. On the whole, however, the differences between ranks that we saw in the system as a whole (Table 4.14) seem to apply to the ranks within each subject. But the extent of the difference varies between subjects. In arts there is a 20% difference in the proportion of "researchers" between Readers and Senior Lecturers--just over a quarter of arts Senior Lecturers are research-oriented, against nearly half the Readers. In social science the difference is 27%--34% against 7%. In natural science it is only 9%, in medicine 15%, and in technology only 7%--but the difference between Readers and Professors is 17%. Lastly, there are clear differences between the subjects. If we ignore the somewhat heterogeneous category of "others" we find that the least research-oriented grade (Senior Lecturers) in medicine has about the same proportion of researchers as the most research-oriented grade (Readers) in natural science; and again the lowest figure for researchers in natural science, among its Senior Lecturers, is 33%; the highest in social science, for Readers, is 34%. Technology has a narrower spread than social science, and fits in between the extremes of social science. Arts has a broader spread than natural science, and extends both above and below it.

To sum up, in slightly less dry and statistical terms, we have found neither overwhelming concentrations of researchers, nor the absence of concentration. Rather, we do find within each subject the differences of emphasis between ranks that we found in the system as a whole, though weaker in medicine and in science than in arts and social science. In the former two subjects, the requirements of the discipline for research seem to have acted as levellers between the ranks. The differences between the subjects are no less strong when we look at the ranks separately--indeed, they outweigh differences between ranks so that it is possible to find three subject areas with scarcely any overlap. In other words, the subject that a man teaches is a major determinant of his interest in research; his rank causes internal variation within the bounds of his subject, but (except where the subjects are close together, as are arts and natural science, or social science and technology) does not make him look like a teacher in another area.(15)

We now turn, as promised above, to variations among university groups once more, now looking at them in combination with subject taught, as they together bear on research orientations. In Table 4.20 (on the following page) we find the highest proportion of research-oriented staff, 56%, among the scientists at Sussex, the lowest proportion, 12%, among arts teachers in the former CATs and social scientists in Wales.(16) In all the groups that contain large universities--Oxbridge, London, the major redbricks and Scotland, and also in Sussex--natural science and medicine show the highest proportion

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(15) At the teaching end of the spectrum the story is not so very different, though perhaps less clear. There is a wider range in all subjects except in arts, and it is also interesting that in arts, technology and medicine the Professors are the grade least interested in teaching. The wide range adds a significant rider to our remarks above--although medicine and natural science evidently require that each grade should have a certain very similar number of researchers, it is possible for the grade to be more differentiated as regards teaching. As a result of the wider range there is more overlap between the subjects at this end of the spectrum, but the same general pattern predominates.

(16) Followed closely by social scientists in minor redbricks and technologists in the CATs.

Table 4.20 Research Orientation by Subject and University Group (per cent)

University Group

Research Orientation	Wales				London					Major Redbrick					Minor Redbrick			
	A	SS	NS	T	A	SS	NS	T	M	A	SS	NS	T	M	A	SS	NS	T
Research	31	12	26	25	39	34	43	24	44	37	20	40	34	53	47	13	20	45
Both	28	29	47	17	21	28	27	32	27	20	23	35	20	35	21	10	28	9
Teaching	41	59	28	58	39	38	30	45	30	43	57	25	46	12	32	77	52	45
Totals	(29)	(17)	(43)	(12)	(61)	(29)	(30)	(38)	(55)	(92)	(82)	(138)	(71)	(43)	(47)	(31)	(40)	(11)

(Continued below)

	Scotland					Oxbridge				Sussex			CATs			
	A	SS	NS	T	M	A	SS	NS	T	A	SS	NS	A	SS	NS	T
Research	22	28	45	19	34	39	38	44	31	30	50	56	12	28	17	15
Both	12	24	20	28	34	28	29	32	23	21	17	17	0	28	27	24
Teaching	66	48	36	53	31	33	33	24	46	49	34	27	88	44	56	61
Totals	(41)	(25)	(87)	(32)	(29)	(64)	(24)	(34)	(13)	(47)	(18)	(54)	(16)	(39)	(146)	(172)

Key to Columns

A = Arts
SS = Social Science
NS = Natural Science
T = Technology
M = Medicine

of researchers. At Oxbridge, London and Scotland technology comes last. Taking the groups individually, Oxbridge is interestingly homogeneous: we suggested earlier that there might be large differences here between arts and social science, on the one hand, which are most adaptable to the tutorial system, and natural science on the other. In fact, the differences among all broad divisions of study at Oxbridge are fairly small, and the emphasis on research is relatively high, even in technology, which has as many researchers as does any subject at Wales or the CATs. Sussex, however, which also uses a tutorial system, shows big differences between natural science and arts (though social science, interestingly, is here very close to natural science). London is likewise fairly homogeneous, and high in researchers, with the exception of technology. In the large redbricks the spread is once again fairly narrow, except that this time it is social science that has the fewest researchers, while technology is not far below arts. The spread in Scotland is wider, and the order is unusual: here alone medicine is not the most research-oriented subject, falling to second place behind science, followed by social science third, arts fourth, and technology last: moreover, arts has more teaching-oriented men even than technology. In Wales and the minor redbricks arts is the most research-oriented subject, and social science least (technology really has too few cases to be reliable). We suggested earlier that small institutions like these really cannot support large-scale scientific research with laboratory facilities, etc; and though they also tend to have small libraries, which might discourage research in the arts, this is evidently less important in its effects on research orientations. In the CATs for once social science leads in research orientations, followed by natural science, technology and arts.

Before we leave this table, it may be revealing to examine the subjects and see how they differ in research orientation in the different groups. The actual figures are obtainable by reorganizing the table to control for subject taught: they will not be presented in this form here; but we can spell out the order of research orientations (top line) for each subject. In arts it runs from minor redbricks first with 47%, then Oxbridge and London, major redbricks, Wales, Sussex, Scotland, and the CATs with 12%. For social science it runs from Sussex (50%), Oxbridge, London, Scotland and CATs, major redbrick, minor redbrick, to Wales (12%). Natural science: Sussex, again, (56%), Scotland, Oxbridge, London, major redbrick, Wales, minor redbrick, CATs (17%). Technology: minor redbrick (45%), major redbrick, Oxbridge, Wales, London, Scotland, CATs (15%). Medicine: major redbrick (53%), London, Scotland (34%). Giving the order alone somewhat disguises the very varying intervals--the figures should be referred to--but a few conclusions can be stated. The large institutions, Oxbridge, London, the major redbricks and Scotland, fall in the middle or higher, and are clearly places where a considerable number of their faculty in all subjects favor research. Of the rest the minor redbricks are highest in their proportions of researchers in the arts and technology. Arts is one area in which small places can best compete, while technology is an area where other university groups are not, in fact, competing strongly. It would be interesting to know whether this is the result of some form of natural selection, or if it represents a deliberate choice of function to avoid competition in areas where larger institutions would have the advantage. Wales has not followed the same pattern; for it comes fairly low in all areas. The position of Sussex and the CATs, on the other hand, is probably not so much a response to their positions vis-à-vis other institutions, but as we have argued earlier, a product of their own internal characters as distinct kinds of institutions within the system.

Table 4.21 (on the following page) presents the number of articles

Table 4.21 Number of Articles Published, by Subject & University Group (per cent)

University Group

Number of Articles	Oxbridge A	Oxbridge SS	Oxbridge NS	Oxbridge T	London A	London SS	London NS	London T	London M	Major Redbrick A	Major Redbrick SS	Major Redbrick NS	Major Redbrick T	Major Redbrick M	Minor Redbrick A	Minor Redbrick SS	Minor Redbrick NS	Minor Redbrick T
0	9	4	6	15	11	3	3	0	0	6	16	2	10	2	6	16	0	9
	26	26	9	46	31	16	13	34	7	37	43	16	42	7	36	48	31	45
1-4	17	22	3	31	20	13	10	34	7	31	27	14	32	5	30	32	31	36
5-10	24	4	11	8	20	17	13	32	11	33	27	25	30	9	24	29	24	45
10-20	23	22	22	23	31	33	23	18	29	14	22	22	15	21	20	13	17	0
	50	70	80	46	49	66	75	34	83	31	31	59	29	84	40	23	46	9
over 20	27	48	58	23	18	33	52	16	54	17	9	37	14	63	20	10	29	9
Totals	(70)	(27)	(36)	(13)	(61)	(30)	(31)	(38)	(56)	(95)	(82)	(147)	(73)	(43)	(50)	(31)	(42)	(11)

Number of Articles	Scotland A	Scotland SS	Scotland NS	Scotland T	Scotland M	Wales A	Wales SS	Wales NS	Wales T	Sussex A	Sussex SS	Sussex NS	CATs A	CATs SS	CATs NS	CATs T
0	28	12	2	19	7	13	17	2	0	29	14	2	69	31	22	43
	58	41	23	50	14	43	39	27	27	64	47	33	81	49	63	78
1-4	30	29	21	31	7	30	22	25	27	35	33	31	12	38	41	35
5-10	16	12	27	31	27	13	28	18	27	22	24	31	19	23	21	13
10-20	5	21	18	16	23	20	17	16	18	9	19	21	0	3	7	5
	26	46	50	19	60	43	34	55	45	14	29	37				
over 20	21	25	32	3	37	23	17	39	27	5	10	16	0	5	10	4
Totals	(43)	(24)	(95)	(32)	(30)	(30)	(18)	(44)	(11)	(55)	(21)	(58)	(16)	(39)	(151)	(175)

published by subject and university group. The overall picture is not so very different from the results by our index, with one or two exceptions. In general, first of all, we find again as we found above (Table 4.17 and 4.18) that in research productivity, as compared with orientations, technology drops even lower in comparison to all the other subjects, and social science appears stronger, equalling and sometimes surpassing arts. Most of the remarks made above still hold true, but one exception is that the minor redbricks, which had a relatively large number of research-minded men in arts and technology, do not turn out especially productive in these fields. In arts they come somewhere in the middle in terms of articles published; and in technology very near the bottom.(17) Again, Oxbridge, London, the major redbricks and Scotland are high in all areas, except for the major redbricks in social science (as before) and Scotland, which is very low in technology.

The institutional "climate" for research

A glance at Table 4.22 (on page IV-39) bearing on research done during term, shows one interesting pattern: men in the natural sciences show remarkably similar proportions in all university groups. Variations among arts and social science staff in different kinds of university are much greater. For example, while only a quarter of arts teachers in London report that they can do no research during term, the comparable proportions at major redbricks, Wales and Sussex are near a half. Similarly, where only one in six social science teachers in London cannot do any research in term, the figures elsewhere range from one in two to one in three.

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(17) We discuss the university teachers in technology in a separate note at the end of this chapter.

Table 4.22 Research During Term by Subject & University Group (per cent)

University Group

	Oxbridge				London					Major Redbrick					Minor Redbrick			
Research During Term	A	SS	NS	T	A	SS	NS	T	M	A	SS	NS	T	M	A	SS	NS	T
A substantial part	17	19	36	17	17	22	39	19	63	11	7	34	27	65	10	6	26	9
A little of it	46	48	47	58	55	62	48	64	24	37	49	52	41	25	54	56	50	27
None of it	37	33	17	25	28	16	13	17	14	53	44	14	32	10	36	38	24	64
Totals	(70)	(27)	(36)	(12)	(60)	(32)	(31)	(36)	(51)	(95)	(84)	(148)	(71)	(40)	(50)	(32)	(42)	(11)

(Continued below)

	Scotland					Wales				Sussex			CATs			
	A	SS	NS	T	M	A	SS	NS	T	A	SS	NS	A	SS	NS	T
A substantial part	9	24	34	12	46	14	19	16	25	7	10	25	7	26	15	17
A little of it	51	28	44	41	46	31	38	62	50	42	40	58	20	41	51	45
None of it	40	48	22	47	7	55	44	22	25	51	50	18	73	33	34	38
Totals	(43)	(25)	(95)	(32)	(28)	(29)	(16)	(45)	(12)	(55)	(21)	(57)	(15)	(39)	(141)	(166)

Arguments about the desirability of doing research during term can be made either way. From one point of view, research activities are a distraction, and necessarily reduce the time and attention a man can give to his teaching; the assumption here is that research activities must be at the expense of teaching. On the other side, it may be argued that unless a man carries on some of his research activities during term his students are not likely to get a sense of the nature of research activity, and of its difficulties and frustrations and rewards, but are restricted to reading about its results. The assumption here is that research enriches teaching, and that to confine research to vacations is to insulate one's teaching from research to the detriment of both.

Whatever the relative weight of these or other arguments for or against doing research in term (and they surely vary in weight in different fields and subjects), they are undoubtedly among the factors which determine whether and how much research is done during term. And that question, quite apart from the question of whether it should be done, is worth further investigation. It is likely that whether men do research during term is in part a function of resources (e.g., research facilities, funds, post-graduate students, light teaching loads), as well as the teacher's own orientation toward teaching or research. In addition, there is a powerful though subtle force at work in universities that we can only call the "climate" for research activities. This climate, the normative ambiance within which academic men work, reflects the dominant values regarding the relation of research to teaching, and the relative importance of those activities in the basic mission of the university. These norms and values regarding research both reflect and affect the availability of research resources--money, libraries, laboratories, post-graduate students. Moreover, the climate may well be affected by the character and values of a particular Vice-Chancellor, as well as by the scholarly or scientific distinction of the staff and especially of the leading Professors in the several subjects. The climate for research at a given institution is also affected by the institution's own history and traditions, which help define the institutional values which in turn set priorities among conflicting activities and allocations of resources. Whether a man does any research, when he does it during the year, and how much he does, will be affected by the research climate of his university and of his department, by the resources available to him, and by his own research orientations; these factors, though analytically distinguishable, are related to one another and mutually influence one another.

Our present study does not allow us to separate the elements in this system of forces; the only element among the immediate determinants of research activity for which we have direct data is the teacher's own research orientation. If we attempt to "control" for differences in research orientations among individuals in order to assess the importance of the institutional context, we see in Table 4.23 (on the following page), that men with similar research orientations are likely to do quite varying amounts of research if they teach in different universities, or even different kinds of universities. For example, among academic men with teaching orientations, nearly half at Oxbridge and London have published ten or more scholarly articles, as compared with only a quarter of the "teachers" at Scottish and major redbrick universities. The differences are equally striking if we compare men with research orientations who teach in different universities. The institutional context has a similar effect on the opportunities (and motivations) to do research during term. In Table 4.24 (Page IV-42) we see that among men with research orientations, the proportion who are able to do a substantial amount of

Table 4.23 Percent Publishing More Than Ten Articles, by Research Orientation and University/University Group

	Group						University								
Research Orientation	Ox-bridge	Lon-don	Major Red-brick	Minor Red-brick	Scot-land	Wales	Ox-ford	Cam-bridge	Birming-ham	Leeds	Liver-pool	Man-chester	Notting-ham	Edin-burgh	Glas-gow
Research	66	71	60	51	48	51	74	57	61	50	62	63	55	50	61
Both	66	72	50	34	52	50	60	72	60	43	55*	67	30*	62	53
Teaching	49	48	26	33	25	39	48	50	25	21	33	37	30	32	20

Table 4.24 Percent Doing Substantial Research in Term, by Research Orientation and University/University Group

Research	29	42	39	24	33	17	26	31	69	26	55	35	28	24	39
Both	32	34	28	15	40	22	33	32	29	29	36*	40	0*	45	53
Teaching	15	18	15	8	15	7	9	21	12	0	29	24	0	21	17

* N < 16

research during term varies from 17% (in Wales) to 42% (at London colleges). The variation in this regard between individual universities is even larger: only a quarter of "research oriented" teachers at Edinburgh, Leeds and Oxford are able to do a "substantial" amount of research during term, as compared with over two thirds in Birmingham and over half at Liverpool.

Besides variations between institutions, moreover, the climate for research varies by subject and department as well; and indeed, for some subjects, the norms of the discipline outweigh, and relatively reduce, the influence of institutional norms, while external support for research, both material and scholarly, may count for more than does the support of the man's own university. This, we believe, is the explanation of the much narrower variation in research activity during term among natural scientists as compared with arts men or social scientists that we saw in Table 4.22. But these figures are only suggestive. What is needed is direct study of the "climates" for research, within disciplines, departments, and universities: how they are formed and sustained, on one hand, and how they affect the character, timing, amount and quality of research that is done within the ambiance, on the other.

Age and research orientations

We have been looking at institutional influences on and variations in research orientation and activity--at least so far as our data, gathered chiefly from the academic men themselves, will allow. Now we want to turn back to the teachers themselves, and look for the moment at an important element in a man's academic career--namely, how far along he is in it. For this we take as a rough indicator our teachers' ages, since most academic men enter academic life at much the same age, during their middle twenties, directly after taking their first degree, or after a few years of postgraduate work. There are of course many individual exceptions, which we believe are close enough to being randomly distributed, among subjects and universities, teachers and researchers, not to affect our findings.(17a)

We have already seen that the number of articles published increases fairly steadily with age, at least up to about 45 or 50--an obvious enough finding. This could be due simply to the passage of time: indeed we can deduce nothing from it. But there is another question, namely, whether interests in research or in teaching do in fact vary for different age groups. If this is the case there are, of course, several possibilities; one is that in the course of their lives academic men change their conceptions of their job or profession, perhaps as a result of a reassessment of the nature of a university post, or (if they change towards greater emphasis on teaching) because they feel that they have already made such contributions as they can towards advancing knowledge in their creative youth, and feel their later years are best spent in transmission of their own discoveries and those of younger men. In addition, as we noted earlier, age brings administrative responsibilities to many; and changes in research orientations may merely be a realistic reflection of what a man can do with his time. Another possibility is that there has been a change over the last forty years in the universities' assessments of their chief function, so that younger men hold different views not because of their own youth but because of the time they live in.

(17a) The one major exception may be in the 35-39 and 40-44 cohorts, whose university education and entry into academia may have been interrupted by World War II, and who thus may have started their academic careers somewhat older, on average, than the other groups. We have not attempted to compensate for this possibility, since it is likely that the effects of war experience on the academic career are more complex than a mere delay in starting, and beyond the reach of our survey data.

The changes which the university system has experienced in recent years have had many effects which are discussed elsewhere in this study, notably in the chapter on expansion. Expansion itself has been accompanied, indeed largely motivated, by a desire to widen the availability of university degrees to a larger social group, and it may be that young teachers see it as their duty now to pay more attention to their pupils, especially those from relatively disadvantaged backgrounds, than was the case in the past. But the staff-student ratios have not changed for the worse in recent years, so that expansion has not placed any direct strains on most teachers' allocation of teaching time. And despite reactions like that at Sussex in favor of an improvement in undergraduate teaching, the general trend, encouraged by the greater size and better research facilities of most individual departments, and by increasing pressures within British society for technological progress even at the expense of traditional "liberal" educational values, has been towards a greater emphasis on research. If we add to this the idea put forward above, that youth is generally seen as the time of creativity, and old age of consolidation in academic careers, we should expect to find a steadily greater emphasis on teaching in older age cohorts.

In this particular case it will be useful to start not with our index but with one of its two constituents, since this may shed some light on the possibilities mentioned above. For although we have seen that personal preferences and conceptions of the academic role are in general quite closely linked, it would be possible for personal preferences to change with increasing age, while conceptions of the role of some typical academic man, perhaps imagined as in early middle age, would not alter so much.

First, then, Table 4.25 (on the following page) examines personal preferences in different age cohorts.

Table 4.25 Preference for Teaching or Research, by Age (per cent)

	Age Group								
Interest	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 & over
Very heavily in research	12	14	10	11	12	4	5	5	10
Both, leaning to research	70	61	58	56	53	50	48	45	25
Both, leaning to teaching	18	25	32	33	35	46	47	49	65
Totals	(33)	(190)	(257)	(290)	(197)	(156)	(100)	(91)	(51)

As was hypothesized above, we find increasing proportions preferring teaching with increasing age. Under 30 there is a very weak interest in teaching (18-25%); then from 30 to 45 there is relative stability, with roughly one third leaning towards teaching, but about the same number as earlier (10-12%) strongly committed to research; from 45 to 60, roughly half are predisposed towards teaching, and only 5% very heavily committed to research; finally, of those over 60 almost two thirds are teachers, but 10% are "strong researchers." The youngest group is, for the most part, Assistant Lecturers and very junior Lecturers who have not yet made their mark, and for whom it is very important that they should publish fast. Men from 30 to 45 are chiefly Lecturers, who may well be at their most productive period now, but do not have the same necessity to publish in terms of their careers: they have settled into a stable pattern of balance between research and teaching. Around 45 they will start being promoted in significant numbers to the senior grades, and begin taking on significant amounts of administrative work, which is further reflected in a shift away from research. This shift continues among the men over 60, though in this category there is also a small increase in the number strongly committed to research.

Preferences for research and teaching clearly differ by age. Is this also true of the level of research activity? If preferences are related to research work itself, we should guess that as academic men get older they will do less research during term. Besides this, older men, even before they gain a senior rank, tend to be increasingly drawn into administrative duties; and the only counter-balance to this might be that very young Assistant Lecturers may have an extra commitment to teaching in that they have to write new lectures and often familiarize themselves with parts of their field about which they know little. But work, as Parkinson pointed out, expands to fill the time available, and we suspect that most men tend to revise their lectures fairly conscientiously, while the pressure of tutorials is never any less for those who give them.

Table 4.26 Ability to Do Research in Term, by Age (per cent)

	Age Group								
Able to Do--	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 & over
A substantial part	50	27	23	28	24	18	25	24	20
Some of it	34	53	53	45	43	47	43	37	40
None of it	16	20	23	27	33	35	32	40	40
Totals	(32)	(193)	(261)	(290)	(196)	(156)	(97)	(93)	(50)

In fact, apart from the very young (who are still substantially students), the proportion who can do a substantial amount of research during term fluctuates around one quarter; but the proportion who can do no research during term doubles, rising from one fifth at 25 to two fifths at 55 and over.

As we noted earlier, a relationship such as we see in Tables 4.25 and 4.26, showing differences in research orientations and behaviors between age cohorts, can be interpreted in a number of different ways. First, different age groups may behave differently because of differences in their current situation: such as the greater importance for young men to publish if they are to gain good posts; and the difficulties older men have of carrying on research in addition to their increasing administrative responsibilities. Another interpretation puts emphasis on the experience older men have had in the course of having lived longer. This interpretation would suggest that over time the rewards of working with students grow, while the rewards of research decline relatively. It may be that the effect of the concentrated research experience which many academic men have immediately after their first degree becomes gradually attenuated over time, and that in the ordinary circumstances of teaching in a British university there are for most academics few experiences or pressures to renew that involvement. Yet another interpretation would suggest that the differences reflected in Table 4.26 stem from changes in the character of the men being recruited to academic life over these years--that the older men who show weaker research orientations held those orientations when they were young assistant lecturers; and that what has changed is that the young men entering academic life during the past two decades come with stronger research interests than their elders had at the same point in their careers.

It is difficult without direct and comparable evidence over time to choose among these alternative kinds of interpretations. Nevertheless, there is some indirect evidence within our own survey that bears on the issue. Table 4.27 (Page IV-49) shows variations in the conceptions of the academic role among men of different ages.

In this table we see that, while there is a tendency for older men more often to disagree that "an academic man's first duty is to research," the difference between age cohorts in their conception of the role is not nearly

Table 4.27 "An academic man's first duty is to research..." by Age (per cent)

First Duty to Research	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 & over
	Age Group								
Strongly agree	3	7	5	4	3	3	3	3	8
Agree with reservations	42	35	36	25	35	26	31	29	20
Disagree with reservations	48	38	39	47	42	49	42	48	31
	54	58	58	71	62	71	66	67	72
Strongly disagree	6	20	19	24	20	22	24	19	41
Totals	(31)	(193)	(262)	(293)	(193)	(151)	(102)	(93)	(51)

as large or regular as are the difference in their preferences for research vs. teaching or the difference in their research activities during term. The implication that can be drawn from this is that the academic man's conception of his role is relatively stable over time; that older men probably resembled today's young men when they entered teaching, and that it is less the norms surrounding the academic role than the individual's motivations and opportunities that change and are changed over time in the circumstances of British university life. This would suggest a combination of the first two interpretations: that for many older men, the motivation to do a good deal of research grows weaker, and the competitive demands of teaching and administration are greater than they are for younger men.

But is the story the same for all subject areas? It is a popular legend, for example, that no mathematician produces creative work after his twenties, and it does seem to be true that many great scientific discoveries are made very young; while some of the greatest books in the arts have been written in old age, as a distillation of a lifetime's experience and maturation. Is this at all borne out by our sample's orientations and behavior?

Table 4.28 (on the following page) shows the distribution of research orientations by subject and age. It is fascinating to see that precisely these beliefs are borne out by the attitudes of our sample. The purest example of change is in technology: of those under 30, 74% are in the research-oriented category; this steadily declines till it reaches only 15% of those over 45, while those in the teaching-oriented category have risen from 13% under 30 to 68% over 45. In natural science, among the men under 35, the men of 35-44, and the men of 45 and over, the proportions who are research oriented are 46%, 37%, and 27% respectively. Medicine, too, shows a small decline in research orientations over the years, though not a corresponding rise in teaching. In arts, however, there is neither a decline in research-orientation nor a rise in teaching with increasing age. In contrast with the sciences and technology, there is not the tendency to exhaust research interests and turn to teaching increasingly with age.(18)

Tables 4.29 and 4.30 (on Pages IV-52 and 53) show us these age differences by subject separately for the two questions that make up the index of research orientations. Here we see that where they occur, the differences by age are larger and clearer with regard to "personal preferences" (Table 4.29) than with respect to conceptions of the academic role (Table 4.30); they are very large on both questions among teachers of technology,(19) while on neither question is there any pattern of variation by age among arts teachers; and in the social and natural sciences, the youngest men (under 30) are

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(18) The pattern in social science is irregular: while the youngest men are research-minded, as in the other sciences, and the men over 45 markedly teaching oriented, the 40-44 year old group are markedly more research oriented than the next two younger groups. The numbers are not large; so that this could be a chance result. And yet this group were the men who entered academic life just after World War II. This "generation" of young Turks has had a marked effect on British social science; it may be that it is still distinguishable, nearly 20 years later, by its research interests.

(19) See below, "A Note on University Technologists"

Table 4.28 Research Orientation by Subject and Age (per cent)

Research Orientation	Arts					Social Science					Natural Science				
	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+
Research	36	50	33	46	29	45	19	17	43	9	45	48	37	38	27
Both	17	21	19	8	30	21	22	30	17	22	30	23	32	38	33
Teaching	47	29	48	46	40	33	59	52	40	69	25	29	32	25	40
Totals	(53)	(56)	(58)	(48)	(122)	(33)	(27)	(46)	(30)	(74)	(88)	(73)	(76)	(48)	(94)

(continued below)

Research Orientation	Technology					Medicine				
	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+
Research	74	35	14	19	15	83	52	47	48	35
Both	13	27	33	15	18	17	19	25	33	37
Teaching	13	38	52	67	68	0	30	28	19	28
Totals	(23)	(51)	(42)	(27)	(34)	(6)	(27)	(36)	(27)	(43)

Table 4.29 Preference for Teaching or Research by Subject and Age
(per cent)

Preference	Arts					Social Science					Natural Science				
	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+
Strong research	4	9	12	8	2	11	0	10	7	3	15	14	13	12	11
Lean to research	55	65	50	55	57	60	48	48	63	25	68	64	63	62	51
Lean to teaching	42	26	38	37	41	29	52	42	30	72	16	23	24	26	38
Totals	(55)	(57)	(58)	(51)	(127)	(35)	(27)	(48)	(30)	(75)	(92)	(74)	(79)	(50)	(100)

(continued below)

Preference	Technology					Medicine				
	30-	30/4	35/9	40/4	45+	30-	30/4	35/9	40/4	45+
Strong research	26	6	0	4	3	67	22	19	32	12
Lean to research	61	55	60	41	29	33	56	64	43	44
Lean to teaching	13	39	40	56	68	0	22	17	25	44
Totals	(23)	(51)	(42)	(27)	(34)	(6)	(27)	(36)	(28)	(43)

Table 4.30 "An Academic Man's First Duty is to Research", by Subject and Age
(per cent)

First Duty to Research	Arts 30-	Arts 30/4	Arts 35/9	Arts 40/4	Arts 45+	Social Science 30-	Social Science 30/4	Social Science 35/9	Social Science 40/4	Social Science 45+	Natural Science 30-	Natural Science 30/4	Natural Science 35/9	Natural Science 40/4	Natural Science 45+
Strongly agree	5	7	8	6	5	9	0	2	0	0	5	5	4	2	6
	37	48	32	46	35	38	21	21	40	17	40	47	35	39	31
Agree with reservations	32	41	24	40	30	29	21	19	40	17	35	42	31	37	25
Disagree with reservations	35	44	44	31	46	44	46	46	43	53	42	30	47	47	45
Strongly disagree	28	8	24	23	18	18	32	33	17	30	18	22	18	14	24
Totals	(57)	(59)	(62)	(48)	(125)	(34)	(28)	(48)	(30)	(77)	(91)	(76)	(78)	(49)	(96)

(continued below)

First Duty to Research	Technology 30-	Technology 30/4	Technology 35/9	Technology 40/4	Technology 45+	Medicine 30-	Medicine 30/4	Medicine 35/9	Medicine 40/4	Medicine 45+
Strongly agree	4	6	2	0	0	17	4	3	7	2
	62	43	14	21	24	50	45	46	44	47
Agree with reservations	58	37	12	21	24	33	41	43	37	45
Disagree with reservations	29	35	52	46	32	50	37	38	37	43
Strongly disagree	8	22	33	32	44	0	19	16	19	9
Totals	(24)	(76)	(42)	(28)	(34)	(6)	(27)	(37)	(27)	(44)

conspicuously research minded, while the men over 45 are markedly more oriented toward teaching.

Publication, and office-holding in scholarly societies, by age and subject

Publication is the most visible evidence on research activity, and holding office in a scholarly or scientific society a rough though useful indication of academic distinction.(20)

Table 4.31 (on the following page) shows us the distribution of quantity of publication (in article form) by age within the several broad academic areas; while Table 4.32 (on the following page) shows us comparable distributions of holders of national office in academic societies. These tables are revealing in several ways. First, as we would expect, older men have more publications to their credit, and are more likely to have held national office. The two notable exceptions to these linear patterns are the men over 45 in both technology and social science. In both these areas, the older men have fewer publications than the men in the age grade immediately below, and in the case of technologists, fewer office holders as well. There is a strong suggestion here (and there is further evidence in our note on university technologists) that themen recruited to teach technology and the social sciences in British universities before World War II were markedly less research oriented than either men in other fields, or the men in their own fields recruited to the universities after the war.

There is another interesting finding in Table 4.31, which supports the popular conception of the natural sciences as subjects in which the burden of research and discovery is carried disproportionately by young men. If we look (Chart 4.1 on Page IV-56) at the proportions who have published ten or more professional articles, we see in the natural sciences a large increase--

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(20) See Alan E. Bayer and John K. Folger, "Some Correlates of a Citation Measure of Productivity in Science," Sociology of Education, Fall 1966, (39, No. 4) pp. 381-391.

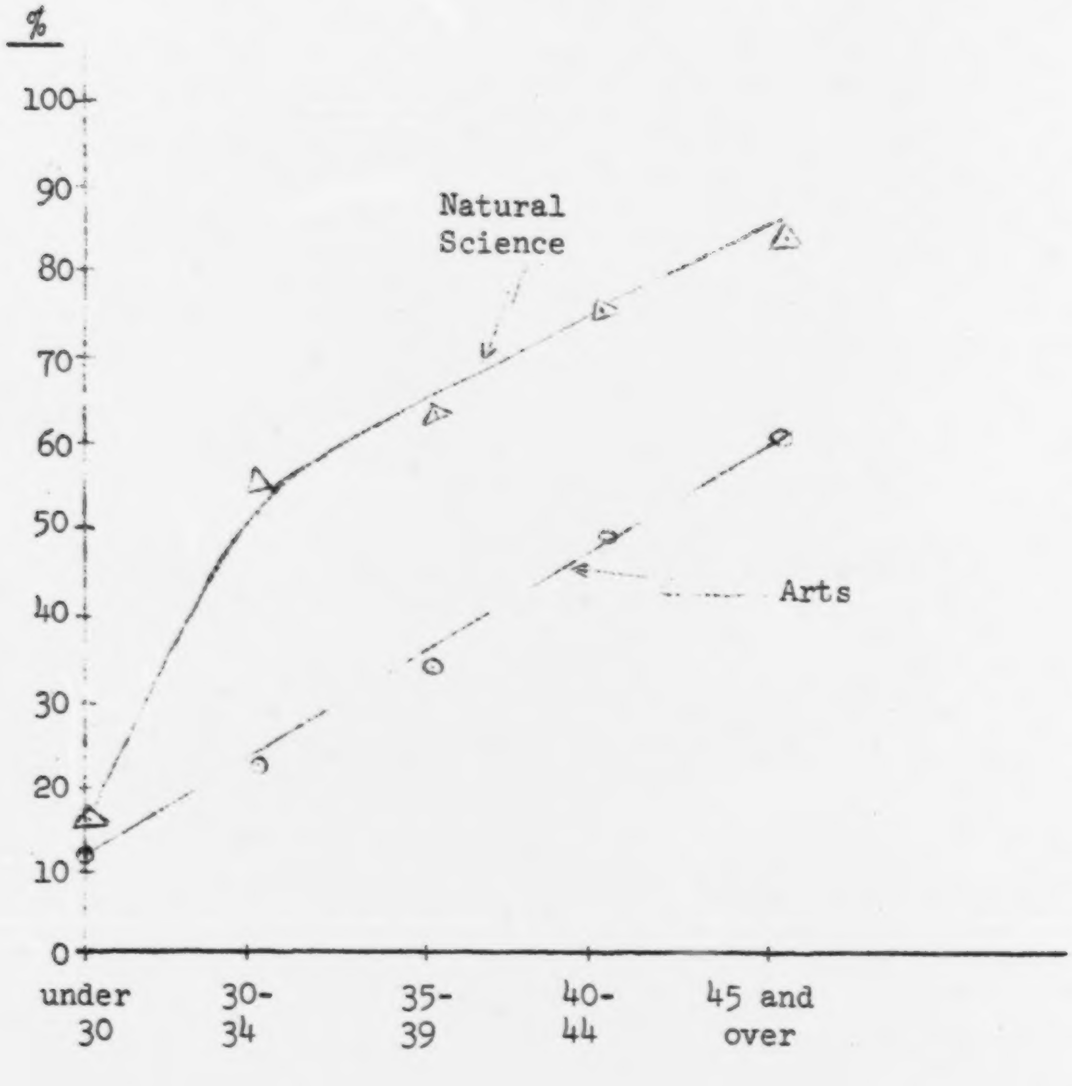
Table 4.31 Number of Articles, by Subject & Age (per cent)

Number of Articles	Arts					Social Science					Natural Science					Technology					Medicine				
	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+
0	25	18	3	4	6	17	19	15	7	8	4	0	5	2	0	0	10	17	7	6	x	0	3	0	2
	69	56	32	24	20	66	45	34	27	28	49	14	17	14	4	50	51	43	26	30	x	15	9	0	7
1-4	44	38	29	20	14	49	26	19	20	20	45	14	12	12	4	50	41	26	19	24	x	15	6	0	5
5-10	19	22	34	28	21	26	22	19	7	27	35	31	19	12	13	25	29	31	30	32	x	33	11	7	5
10-20	12	12	22	24	22	6	15	32	40	19	14	30	21	23	13	21	16	12	30	6	x	33	39	14	16
	12	22	34	48	60	9	34	47	67	46	16	55	63	75	83	25	20	26	45	38	x	52	81	93	89
20+	0	10	12	24	38	3	19	15	27	27	2	25	42	52	70	4	4	14	15	32	x	19	42	79	73
Totals	(59)	(60)	(59)	(50)	(125)	(35)	(27)	(47)	(30)	(75)	(94)	(77)	(80)	(52)	(99)	(24)	(51)	(42)	(27)	(34)	(6)	(27)	(36)	(28)	(44)

Table 4.32 Proportions Who Have Held Office in Academic Societies, by Subject & Age

	Arts					Social Science					Natural Science					Technology					Medicine				
	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+	30-	30-34	35-39	40-44	45+
Office-holders	10	20	26	40	49	19	33	36	21	42	4	17	38	53	62	8	20	21	48	36	x	26	22	46	74
Totals	(59)	(59)	(61)	(50)	(125)	(36)	(27)	(47)	(29)	(76)	(95)	(76)	(80)	(51)	(101)	(24)	(51)	(42)	(27)	(33)	(6)	(27)	(37)	(28)	(43)

Chart 4.1 Rate of increase in cumulative publication of scholarly and scientific articles among university teachers in science and arts subjects. (Per cent in category having 10 or more published articles.)



from 16% to 55%--between the men under 30 and the 30-34 year old cohort. Among arts teachers and social scientists the increase in cumulative output is much more even over time: the slope of the curve for the arts men is almost perfectly linear.(21) The recognition that takes the form of office in academic societies, however, as we see in Table 4.32, does not reflect the quantitative output of young scientists, but, as in other fields, for most men comes much later in their careers. Perhaps that is just as well for the research productivity of the young scientists.

Differences in the proportions of office-holders in different academic areas may reflect nothing more than differences in the number of academic and learned societies, and thus of offices, between fields. But within each area we may compare the achievements of different age-groups, who presumably have had the same opportunities for recognition in this way. It is interesting that the difference between extremes of age is largest for natural science and medicine, then technology and arts, and finally social science. In other words, age greatly increases the chances for the honor of office-holding in science and medicine, and to some extent in arts and technology. But in social science even those under thirty have a one-in-five chance of holding office, and this has only doubled after 45. In well-established disciplines, and especially in research-oriented subjects, this kind of honorific recognition tends to come late in the career. In "newer" subjects (newer at least to British universities), national societies are not only scholarly associations, but also instruments for defining the subject and its place in the curriculum. Young social scientists in recent decades have been seeking not merely for recognition for their own scholarly or scientific achievements, but also for status and prestige for their disciplines, and have, therefore, been conspicuously active in their national societies. Indeed, in some disciplines, genuine national societies are recent, and have been founded by the post-war generation.

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(21) Over age 30, scientists also cross the 10 article level at a roughly constant rate, and at roughly the same rate as arts men, though there are fewer of them left below it at any given age.

Conclusion

In this chapter we have been primarily concerned with the way the British university system deals with the tension between the two major, and in some ways conflicting, components of the academic role: teaching and research. We have seen first of all that no part of the university system resolves the tension by surrendering one element of the role altogether. Everywhere it is accepted that both teaching and research (or scholarship) are legitimate activities of academic men, that both are involved in what it means to be a university teacher. It is the relative emphasis on these two functions that differs in different parts of the university system. And by a kind of academic division of labor, some parts of the institution and some sections of the profession place greater weight and invest larger resources of time, energy and money in one or the other. We have seen, always speaking relatively, and in terms of relative emphasis, that research is disproportionately concentrated in Oxbridge and London; among Professors and Readers, and very young Lecturers and Assistant Lecturers; and in the arts and natural sciences (and medicine); the many refinements and qualifications of these assertions have made up the bulk of the chapter.

The tension between teaching and research is in part sustained by the university system, which "assigns" different tasks to different segments of the university, and in part by the individual university teacher, who everywhere feels the dual commitment to both create and transmit knowledge. In the next chapter we will be examining differences in social origins and present attitudes and life styles which help explain what kinds of men choose to emphasize one or the other aspect of the academic role.

When we speak of different parts of a university system being "assigned" different roles and tasks, we are for the most part using the word in a metaphorical sense.(22) The relation of different fields of learning to the creation and transmission of knowledge is rooted in the intellectual history of the several academic disciplines, and the circumstances surrounding their emergence from the far less differentiated organization of the pre-modern university curriculum. Similarly, the relative emphasis on teaching and research in different universities reflects differences in institutional history, and in their functions in the scholarly and intellectual life of the nation. (On the latter score, however, an American observer may note that despite the marked differences in the history and function of, say, Manchester and Reading, their membership in a national university system makes them more alike than comparable institutions in the United States.)

While historical forces, both intellectual and institutional, have shaped the relative emphasis on teaching and research in different subjects and universities, these "assignments" today can be seen in the different norms and expectations surrounding the academic role in different parts of the university system, and in the wide variations in the resources available for research to men differently located in it. In this chapter we have been studying not the social and historical forces underlying this functional differentiation of role among academic men, but rather the outcome of those forces as they were reflected in the variations in research orientations and activities within British universities at about the time of the Robbins Report. Current and future changes in the size and shape of British higher education cannot help but also change the distribution of research activities in the university system. One outcome may be to strengthen the research functions of technology in the universities and former CATs.

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(22) However, during and since World War II the Government, through earmarked grants and in more indirect ways, has "assigned" certain universities specific research areas. This tendency may well increase in future.

A note on university technologists

The most striking finding in Tables 4.17 and 4.18 is that the teachers of technology, even in the CATs, are so little oriented toward research. Technology without research is mere craftsmanship, just as science without research is a branch of history or philosophy. Neither subject can really justify a place for itself in the modern university apart from its research activities and research training, and the latter can hardly be divorced from the former. Scientists in British universities accept and reflect this in their high levels of research orientation and activity. A very large number of university technologists apparently do not. It is perhaps not inappropriate to ask--what are they doing? Or, how does one "teach" the branches of professional engineering and applied science without engaging in research in those fields?

But there is another, and perhaps more immediately profitable question we may ask about technologists in the context of the present study. That is, who are the university teachers of technology who do engage in research, and in what respects do they differ from those who do little or none? It may be that there is in technology, to a higher degree than in other university subjects, a marked division of labor between the men who carry the research work of the subject and those who only teach it.

In Table 4.33 (see next two pages) we compare research-oriented and teaching-oriented technologists in universities and in CATs, with respect to rank, age, academic careers (including class and level of degree), and also, anticipating Chapter V, social origins. Comparable distributions are shown for research- and teaching-oriented men (within the universities only) in all other subjects combined.

The most significant difference between research- and teaching-oriented university technologists (and this excludes the men in CATs) is in their age distribution (Table 4.33B). Over two thirds of the research-oriented technologists in our sample were under 34 years of age, as compared with only a quarter of the technologist "teachers" who were in that age group. In other fields, research men tend to be younger than teaching-oriented academics, but the differences are nowhere near so large. And it is not that technologist "teachers" are on average so very old,(23) but rather that the technologist researchers are on average so very young. This suggests a very real change in the character and orientations of the men being recruited to university posts in technology departments--and indeed, perhaps a change in conceptions of what such departments ought to be like.(24)

Technologists differ from other academics in another way: the "teachers" and "researchers" among them show a larger difference in their class origins than is true for men in other fields (Table 4.33C). Over half the teaching-oriented technologists were drawn from working class backgrounds--the highest proprotion in any of these categories. The connection between working class origins and teaching orientations holds true also, though less strongly, as

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(23) They are no older, on average, than "teachers" in other fields.

(24) A similar pattern can be seen in the technologists' distribution among academic ranks (Table 4.33A): compared with other subjects, technologist "researchers" are more likely to be Lecturers or Assistant Lecturers.

Table 4.33 Profiles of Technologists in Universities and CATs, and All Other Subjects in Universities, by Research Orientation, in Rank, Age, Social Origin, Degrees Held, Class of Degree, and Place Degree Gained

		University Technologists			CAT Technologists			All Others (in Universities)		
		Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
4.33A	Rank									
	Professor	4	17	8	4	0	7	15	19	12
	Reader	10	10	9	22	5	2	11	10	6
	Senior Lecturer	12	10	20	7	10	12	12	16	18
	Lecturer	67	63	61	60	80	71	52	45	56
	Other	8	0	1	7	5	8	10	9	8
4.33B	Age									
	30-	33 } 68	7 } 41	4 } 26	12 } 37	18 } 51	9 } 32	21 } 42	15 } 30	14 } 30
	30/34	35	34	22	25	33	23	21	15	16
	35/39	12	34	26	29	23	26	19	22	22
	40/44	10	10	21	29	15	18	17	14	12
	45+	10	15	27	4	10	25	22	34	36
4.33C	Father's Occupation									
	Professional	15	10	14	15	16	12	22	20	20
	Intermediate	46	48	35	32	42	27	45	40	40
	Skilled	35	38	43	48	37	55	29	34	32
	Semi-skilled	4 } 39	5 } 43	6 } 51	0 } 52	5 } 42	4 } 61	4 } 34	4 } 40	7 } 40
	Unskilled	0	0	2	4	0	2	1	2	1
	Totals (vary slightly)	(51)	(41)	(85)	(27)	(40)	(104)	(405)	(298)	(451)

(continued next page)

Table 4.33 (continued)

		University Technologists			CAT Technologists			All Others (in Universities)		
		Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
4.33D	Higher Degrees									
	None	34	39	39	30	52	68	35	40	48
	M.A.	18	12	21	15	20	19	11	12	15
	Ph.D.	50	51	40	55	28	14	55	48	37
4.33E	Class of First Degree									
	1	46	41	53	26	30	18	42	45	46
	2(i)	18	7	14	19	22	8	15	14	14
	2 undivided	20	22	16	30	18	34	13	15	14
	2(ii)	2	0	2	7	10	3	2	0	1
	3/4	0	2	2	0	2	2	1	0	2
	Pass	4	7	1	4	5	17	5	3	5
	No class given	2	7	5	0	0	0	12	13	9
	No first degree	2	10	6	0	5	6	5	6	7
	Overseas	6	2	0	11	2	5	5	2	1
	Professional qualification	-	-	-	4	5	7	-	-	-
4.33F	First Degree at									
	Oxbridge	18	20	18	0	5	3	29	33	31
	London	22	20	21	26	32	37	16	19	19
	Major redbrick	35	29	34	48	38	31	19	16	17
	Minor redbrick	2	0	1	0	2	4	4	3	4
	Wales	0	2	5	7	8	1	3	5	6
	Scotland	10	15	15	4	2	6	14	14	14
	Overseas	10	5	1	11	2	5	10	4	2
	None	2	10	6	0	5	6	4	6	7
	Professional qualification	-	-	-	4	5	7	-	-	-
Totals	(vary slightly)	(51)	(41)	(85)	(27)	(40)	(104)	(405)	(298)	(451)

we shall see in Chapter V, for other fields as well. The especially strong connection among technologists is difficult to explain, except perhaps as an exaggerated identification with an older conception of the academic role; and perhaps also, a somewhat stronger sense of the teacher's calling as one of service rather than as one of individual pursuit of personal rewards and distinction through research. But this can only be speculative, though the interview material may be illuminating here.

Technologists differ from other academic men in yet another way. While in other fields "researchers" are distinctly more likely to hold a doctor's degree than are men oriented primarily to teaching, the difference in the distribution of higher degrees as between university teachers and researchers in technology is relatively small (Table 4.33D). Nearly half of the technologists hold a Ph.D., second only to the natural scientists in this regard; so their relatively low levels of research activity cannot be attributed to a lack of research training. It is interesting to note here how different are the technologists in the CATs in this respect. There the relation of research orientations and the doctorate is even stronger than among non-technologists in universities.

Several other "profile" comparisons of teachers and researchers among technologists are interesting for the surprising absence of difference between them. For example, it is widely believed by academic men that research is done especially energetically by men who failed to get first class honors as undergraduates, and thus need to make their mark on academic life in other ways. Our data (see Table 4.33E) show very small differences in the distribution of classes of degrees between research- and teaching-oriented men in the universities. (See also below, Chapter V pp. 6ff.)

Perhaps equally surprising is the similarity in where men with teaching and research orientations took their first degrees (Table 4.33F). We have seen earlier in this chapter how wide are the differences in the level of research activity at different British universities. But these differences in the research activity of the staff are not reflected in the research orientations of their graduates who in turn become university teachers--and this is as true for technologists as for men in other fields.(25)

The sources of research and teaching orientations lie elsewhere. In part, they lie in the academic man's own teaching situation: his age and rank, his subject, his present university. But in part these orientations are also shaped by other characteristics of academic men, such as their class origins, and it is to these correlates in the individual's biography and social and educational perspectives that we now want to turn.

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(25) Among technologists in the former CATs, the minority of researchers were more likely to have studied at a major redbrick, the teachers more often in London.

CHAPTER V

TEACHING AND RESEARCH ORIENTATIONS

II: CHARACTERISTICS AND CORRELATES

In the last chapter we tried at some length to locate our teachers and researchers within the university system, and in doing so succeeded also in characterizing the various parts of the system, its different subject areas, its ranks and the various groups of universities in terms of the encouragement and support they provide for research and teaching. We now return to the men whom we have characterized as teachers or researchers, and shall try to describe them in other respects. First of all we shall ask where they come from, both socially in terms of their class origins, and then educationally. After this we shall explore a variety of attitudes and behaviors of academic men that may be linked to their interests in research or teaching--such things, for example, as their hopes and expectations about their future careers.

First of all, what are their social origins? By virtue of their common occupation, university teachers would normally be thought of as members of the same social class. They have nearly all been selected in the most severe meritocratic fashion, in most cases early in their adolescence; exposed to much the same intellectual values and forms of instruction in grammar, direct grant or public schools; attended the same universities; and have spent a good part of their late adolescence and adult years side by side in the same libraries, laboratories and common rooms. The imprint of their common calling and of their academic specialities is very strong upon them, and in many superficial ways quite obliterates differences that in other occupations reflect the early life experience of men who grow up in different classes in modern Britain.

We have reason to suspect (and indeed, in Chapter VII we show) that teachers from different social backgrounds have broadly different political identifications and party loyalties, and hold different views on such directly political questions as the future character of British secondary education. But there is nothing obviously different about professional or working-class backgrounds to lead us to expect that university teachers from those different origins will differ in their research and teaching orientations. We may, however, hypothesize that men from lower-class backgrounds would be less affected by the old liberal arts tradition of British universities, and having risen by their own efforts would lay more stress on tangible achievements in the form of research, and less on the more imponderable, almost ascriptive qualities which are said to characterize a good teacher. With less of a commitment to the part aristocratic, part middle-class traditions of British university life, they might very well be oriented more to the production of knowledge than to the transmission of a cultural tradition. Moreover, if they still suffer from anxiety about their acceptability in a profession composed chiefly of men from middle-class backgrounds, they might find it necessary to prove their suitability for the profession by the quality of their research.

Thus, on one hand we are suggesting that the severe selection and strong common socialization to an academic career should override the effects of varied social origins. On the other, we are suggesting that if different social class origins do have persistent effects on the academic orientations of university teachers, they would be in the direction of stronger research orientations on the part of men from lower-class origins. Tables 5.1, 2 and 3 show the distributions of research or teaching preferences, conceptions of the academic role, and scores on the index of research-teaching orientations which combine those two questions.

Table 5.1 Preference for Teaching/Research by Father's Occupation (per cent)

Preference	Father's Occupation Professional	Intermediate	Skilled	Other Manual
Lean to teaching	34	35	39	46
Total	(263)	(545)	(437)	(85)

Table 5.2 Conception of the Academic Role by Father's Occupation (per cent)

First Duty is to Research	Father's Occupation Professional	Intermediate	Skilled	Other Manual
Agree, strongly or with reservations	37	38	34	22
Total	(263)	(549)	(433)	(88)

Table 5.3 Index of Research Orientation by Father's Occupation (per cent)

Orientation	Father's Occupation Professional	Intermediate	Skilled	Other Manual
Research primarily	36	37	31	25
Total	(252)	(537)	(424)	(84)

Our findings in Tables 5.1-3 show that for the great majority of university teachers drawn from middle-class or skilled-manual backgrounds, differences in their social origins have little or no bearing on their research orientations. But the small proportion from semi- and unskilled workers' homes, contrary to our expectations, shows a somewhat stronger orientation not to research but to teaching. This may be due to the status anxiety associated with very marked social mobility; in order to gain acceptance in an occupational group to which they do not altogether feel they belong, men from lower-class backgrounds may take on, and indeed exaggerate, the characteristics they believe the occupation possesses--in this case, the high value traditionally placed on teaching in the university. There is another, not incompatible possibility that men from underprivileged backgrounds may feel a special obligation to teach in order to give those like themselves the encouragement they need to compete with those who started with greater advantages.

Our inquiry into differences in academic orientations of men from different social origins is, in a sense, a question of the relative power of early versus adult socialization as they affect professional attitudes and behavior. We can explore this question further by seeing whether differences by social origins persist among men who have been university teachers for many years. It is at least plausible that men may come to the profession with different conceptions of it arising out of their different backgrounds, but that these may disappear or become attenuated with long years of common experience in university teaching. In Tables 5.4-6 (on the following page) we see that the differences by social origins do not disappear among older men, but are present in every age category.

Whatever the explanation for these differences, the combination of social class origins and age makes for very marked differences in the academic orientations of university teachers. Where (Table 5.6) almost half of the young teachers of white-collar backgrounds are primarily research oriented, only one in six of the middle-aged or older teachers of working-class origins are similarly oriented. At the other extreme (not shown here) less than a third of the youngest white-collar teachers are primarily oriented to teaching, as against two thirds of the older men of manual-worker backgrounds. These differences in orientation have marked consequences, as we will see later, in light of the heavy concentrations of these older, teaching-oriented men of lower-class origins in certain academic subjects and universities.

Table 5.4 Preference for Teaching/Research by Father's Occupation and Teacher's Age (per cent)

	Age								
	35-			35-45			45+		
	Father's Occupation			Father's Occupation			Father's Occupation		
Preference	Prof./ Inter-mediate	Skilled	Other Manual	Prof./ Inter-mediate	Skilled	Other Manual	Prof./ Inter-mediate	Skilled	Other Manual
Lean toward teaching	25 (265)	31 (176)	39 (31)	31 (282)	38 (162)	44 (27)	48 (261)	55 (98)	56 (27)

Table 5.5 Conception of the Academic Role, by Father's Occupation and Teacher's Age (per cent)

Research is first duty									
Agree, strongly or with reservations	44 (265)	38 (178)	36 (33)	36 (282)	30 (159)	14 (28)	32 (263)	30 (95)	14 (27)

Table 5.6 Index of Research Orientation by Father's Occupation and Teacher's Age (per cent)

Research Orientation									
Research primarily	48 (258)	37 (172)	39 (31)	36 (274)	33 (158)	15 (27)	25 (255)	20 (93)	15 (26)

Before we leave this subject, it is worth pursuing it a little further. As one might expect, considering the different emphases of public and state schools in England, academic men from lower-class backgrounds tend to congregate in science and technology, and there are relatively few of them in arts.(1) We might have expected that this would make them all the more research-minded, but since this is clearly not the case we can ask whether their choice of subject makes a difference to the effect their background has on their attitudes to research. Table 5.7 (on the following page) gives research orientations, by subject and social origin.

It turns out that in all subjects those from manual backgrounds are more teaching-oriented than the rest. But the degree to which this is the case varies. The difference is most noticeable in social science, and (allowing for the combination of the manual and skilled categories) in technology and medicine. It is still there in arts and even in natural science there is a difference in the proportion of research-oriented men from different backgrounds. The disproportionate numbers of "teachers" among the small minority of academic men from semi- and unskilled workers' homes still remains to be explained.

The university teacher's degree

Next we turn to the education of our sample. We shall look first at the degrees they hold, exploring the possibility that these bear any relation to their present orientations to teaching or research. It might be thought, for example, that a good first (Bachelor's) degree would indicate a man's capacity to do good research work, and hence predict his interest in research, whereas

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(1) See Table 7.40, p. VII-42, and discussion there.

Table 5.7 Research Orientation (index) by Subject and Father's Occupation (per cent)

	Arts				Social Science				Natural Science				Technology			Medicine		
Orientation	P	I	S	M	P	I	S	M	P	I	S	M	P	I	S-M	P	I	S-M
Research	32	39	37	25	27	28	17	7	43	42	35	30	32	32	24	51	41	42
Both	20	22	21	20	24	20	29	7	27	26	34	37	18	28	22	28	34	19
Teaching	48	40	42	55	49	52	54	86	30	32	31	33	50	41	54	21	24	38
Totals	(69)	(129)	(108)	(20)	(45)	(81)	(65)	(14)	(60)	(149)	(134)	(30)	(22)	(69)	(78)	(39)	(70)	(26)

Key to column headings: P=Professional S=Skilled
I=Intermediate M=Manual

Table 5.8 Research Orientation (index) by Class of First Degree (per cent)

	Class of Most Recent First Degree								
Orientation	I	II(i)	II undivided	II(ii)	III or IV	Pass	No Class	Gained overseas	No first degree
Research	32	36	32	61	22	38	37	63	24
Both	25	24	28	6	11	23	29	23	29
Teaching	42	40	40	33	67	39	34	14	46
Totals	(595)	(190)	(195)	(18)	(18)	(56)	(136)	(35)	(78)

a less distinguished degree would mean that he was capable of teaching adequately, but could not be expected to do very striking research. On the other hand, while the first degree is still thought of as a useful guide to a man's talents, its effects can be fairly well nullified in later life: the best way of compensating for a low second-class or a third-class degree is to produce really good research. Table 5.8 (page V-7) relates research orientations to the class of first degrees gained.

In fact, there seem to be very little in the way of consistent differences. The three classes which supply the bulk of the university teaching population, first, II(i), and undivided second, are very little different from each other, or from the Pass and no-class degree-holders, in teaching-research orientations. Of the very few cases in each of the lower two classifications, those with II(ii)s seem to lean strongly toward research while those with thirds or fourths lean toward teaching. Apart from them, those who never gained a first degree are biased toward teaching, while those who earned their first degree overseas are definitely research-minded. But for the mass of the teaching population the class of first degree does not seem to make much difference in this context.(2)

Higher degrees, however, should be a different matter. All of them, and especially the Ph.D. or other doctorate, require original research to be submitted as a thesis, and it seems likely therefore that any university teacher who has already shown his ability to do research by gaining a doctorate will be more interested in research than those who have not. This is examined in Table 5.9 on the following page.

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(2) No major differences appeared when we looked at this separately for the several subject areas. See (Appendix) Table 5.53.

Table 5.9 Research Orientation (index) by Higher Degrees Held (per cent)

Orientation	None	Masters Only	Ph.D.
	Higher Degrees		
Research	29	29	41
Both	25	23	27
Teaching	46	48	33
Totals	(540)	(179)	(609)

In fact this is the case: but the difference is not very great. It may partly be weakened by numbers of young men who are keen researchers but have not yet completed their Ph.D. requirements. Even so, the "total" line (nearly as many holding no higher degrees as Ph.D. holders) suggests that there are many men with no Ph.D. and no intention of taking one whose interest in research is not very much less than that of "accredited" researchers. Nor does the breakdown by subjects taught (Table 5.10, on the following page) show much increase in any area; in each of them there is a small, but only small, difference between Ph.D. holders and the rest. Oddly enough, the difference between Ph.D.s and others is smallest among scientists, who have the largest proportion of Ph.D.s, and whose research, one would have thought, is most closely linked to Ph.D. training. But apparently, the research tradition of science is so strong as to shape the orientation and behaviors of Ph.D.s and B.Sc.s alike.

We have seen that the different university groups have on their faculties very different proportions of teachers and researchers. Since a man's first, and presumably most powerful exposure to the academic role comes when he enters a college as an undergraduate, it seems reasonable to look at where our sample first studied, to see whether any effect is still traceable in their attitudes to research and teaching later in their lives. Table 5.11

Table 5.10 Research Orientation (index) by Higher Degrees Held and Subject Taught

	Arts			Social Science			Natural Science			Technology		
Orientation	None	MA	Ph.D	None	MA	Ph.D	None	MA	Ph.D	None	MA	Ph.D
Research 1-2	33	32	46	22	23	29	36	29	41	26	28	31
3	24	19	19	20	20	31	31	35	30	24	16	26
Teaching 4-5	43	48	36	58	57	40	32	35	30	50	56	42
Totals	(171)	(62)	(101)	(125)	(35)	(48)	(80)	(31)	(271)	(66)	(32)	(80)

Table 5.11 Research Orientation (index) by Place where First Degree Obtained, and Subject Taught
(per cent)

	Oxbridge				London				Major Redbrick				Scotland			
Orientation	A	SS	NS	T	A	SS	NS	T	A	SS	NS	T	A	SS	NS	T
Research	36	23	35	28	38	21	27	30	36	20	47	29	28	29	42	21
Both	26	27	29	25	20	23	38	22	12	29	27	21	16	0	28	25
Teaching	37	50	35	47	42	56	35	49	52	51	25	50	56	71	31	54
Totals	(151)	(78)	(96)	(32)	(45)	(48)	(71)	(37)	(42)	(35)	(83)	(58)	(25)	(17)	(65)	(24)

Key to column headings:
A=Arts
SS=Social Science
NS=Natural Science
T=Technology

(on page V-10) does this for the four university groups from which significant numbers of our subjects graduated. It is interesting to compare this with Table 4.20, the corresponding table for the university group in which they now teach. Curiously enough, we find here that among London graduates arts is ahead of natural science in the proportion with research orientations, though the reverse is the case at the major redbricks, and at Scotland, where (see Table 4.20) natural science was most conspicuously more research-oriented than arts among its current faculty. In all subjects, Oxbridge and London are very similar: graduates of the Scottish universities are noticeably more teaching-oriented than these first two, while graduates of the major redbricks are also more inclined toward teaching, except in natural science where they are more research-minded than those from any other group. With the limited amount of information at our disposal it is difficult to know what to make of these findings: the differences in most cases are not very large, apart from Scottish graduates' preference for teaching, which is fairly clear. But we suspect that there is a certain amount of inbreeding within the system: Scottish graduates especially tend to find jobs within the Scottish universities; so that what we are seeing here may not only be the result of undergraduate education, but also a reflection of the effect of the university "climate" where our academic men presently teach.

We have looked at some of the characteristics of teachers and reseachers, those connected with their past history which may not only be antecedent to their present research orientations but also partly responsible for them. We next turn to another group of characteristics which are at least contemporaneous with present research orientations, and as we shall try to show, may be dependent on them. These have to do first of all with their use of sabbatical leaves and other travelling that they may do; then we shall move on to look first at their realistic exprectations of their future career, and secondly at their aspirations in terms of posts that would attract them. Lastly, in this section, we shall investigate whether teachers and researchers differ in their attachment to the university system.

Leave and travel

Sabbatical leave is normally allowed in British universities both to enable researchers to visit somewhere with particular advantages for their purposes, and to allow for appointments to visiting teaching positions at other institutions. There is no general requirement that the leave be used necessarily for either purpose alone. There is therefore no prima facie reason to expect that either teachers or researchers would be the chief recipients of sabbatical leaves. But further reflection suggests that, in fact, researchers are more likely to take leave, since they will often have particular needs that can only be met at other institutions. Moreover, they will be known beyond their home university because of their publications. One of the chief disadvantages of being primarily a teacher is that one's reputation, however well-earned, is essentially intangible, and wide recognition depends on the word-of-mouth communication of one's colleagues. The chances are therefore that a man who is primarily interested in teaching will be less widely known than his research colleagues, and so will be less likely to be invited to teach elsewhere; and if he is not interested in research he will have no excuse to invite himself. Table 5.12(3) (on the following page), which tests these speculations, shows the proportions who have ever had leave, divided by subject taught and research orientations.

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(3) Tables 5.12-13 (and Tables 5.54-56 in Appendix A) contain only those men over 30, since leave is not easily come by in the early years, and this might cloud what clairty these tables possess.

Table 5.12 Have you ever had leave of absence for a term or more? by Subject and Research Orientation (index) (per cent)

	Arts			Social Science			Natural Science			Technology			Medicine		
Ever Had Leave?	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
Yes	32	43	29	52	45	24	35	31	17	12	11	9	26	38	17
Total	(101)	(63)	(114)	(33)	(40)	(101)	(104)	(89)	(95)	(34)	(38)	(82)	(58)	(39)	(35)

Table 5.13 Have you been abroad in the past year? by Research Orientation and Subject Taught (index) (per cent)

	Arts			Social Science			Natural Science			Technology			Medicine		
Have You Been Abroad?	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
No	64	52	74	42	61	61	51	66	80	59	76	84	56	36	57
Once	20	29	16	33	20	25	27	26	16	24	14	11	24	33	29
Twice	11	13	6	15	12	7	11	6	3	12	8	4	14	26	11
Three times or more	5	7	4	9	7	7	11	3	1	6	3	1	7	5	3
Total	(105)	(63)	(116)	(33)	(41)	(102)	(106)	(90)	(95)	(34)	(37)	(82)	(59)	(39)	(35)

We see that there are sharp differences between teachers and researchers in the natural and social sciences. In both of these the chances of leave are about twice as good for researchers as teachers. In technology the tendency is in the same direction: but the chances of leave for any technologist seem to be very small (another bit of evidence on the parochialism of the university teacher in technology). In arts and medicine, it is the half-way group that is most likely to be given leave, and differences between the extreme groups are small, especially so in arts. Referring back to Table 4.19, however, we see that in these two subjects professors especially are concentrated in the middle of the research/teaching spectrum. It may well be that if we were able to introduce age or rank as an additional variable in this table we should find that the dominance of this group would disappear in these two subjects as it has in the others.(4)

Secondly (in Table 5.13, on page V-13), we see the bearing of research or teaching orientations on whether our respondents had been abroad during the past twelve months. It turns out that in every subject researchers have been abroad more than teachers. We have already suggested the reasons why researchers might be expected to take more sabbatical leaves; these would apply even more strongly when all trips abroad are included. Researchers might go for brief spells of fieldwork, or work with special equipment or facilities; and they would also go to conferences to report on their work and keep up with new discoveries in their fields. Teachers would not be affected by any of these considerations except perhaps the last, and there are not many men who are predominantly teachers who would be in demand for brief visiting lectures. So it is scarcely surprising that researchers should be greater travellers; but this is fresh evidence that research provides the passport for admission to the "invisible college" of leaders in each field of scholarship--those leaders, as we shall see, who not only know of each others' work through the journals in their subject, but often know each other personally through visits and meetings at conferences, and communicate informally with each other.(5)

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(4) Similar tables for other aspects of leave (the date of respondents' most recent sabbatical, where and how it was spent) are given in the Appendix as Tables 5.54-56.

Anticipation of academic future

We suggested previously that academic men's definitions of themselves as teachers or researchers are relatively conscious and firm decisions, taken during the years as Lecturer, which probably do not greatly change in later life (although scientists who do their best work early in life do seem to move in the direction of teaching later on). Since there are two senior grades which are defined broadly in terms of their teaching or research functions, and since it is widely believed that Professors are appointed on the basis of past research achievements, we would expect that this self-definition would affect academic men's assessments of their future chances for promotion. Researchers can look forward to an appointment as Reader some time in their lives, and can hope for a Chair; while teachers cannot realistically hope for more than a Senior Lectureship. So it would seem, at least. Our sample was asked three questions about their expectations of their future careers, and in particular about their expectations of a Chair, first at their present university, second at any British university, and thirdly how they thought their prospects of a Chair compared with those of others of the same age and rank. The results are shown in Tables 5.14-16 on the following page. And indeed we find that in every subject area and

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(5) On the "invisible college" in science, see D. de Sola Price, Little Science, Big Science, New York, Columbia University Press, 1963.

Table 5.14 Likely to be Offered Chair at Present University? by Subject and Research Orientation (index) (per cent)

How Likely?	Arts			Social Science			Natural Science			Technology			Medicine		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Almost certainly	0	0	1	2	5	1	1	0	0	0	0	0	0	0	0
Quite probably	6	8	3	10	8	1	6	2	4	8	9	5	14	12	6
Possibly but not probably	32	25	15	27	30	19	25	20	15	38	30	19	37	19	16
Almost certainly not	53	61	73	54	45	63	63	74	74	46	61	69	41	62	74
Not applicable	9	6	8	7	13	17	5	4	8	8	0	6	8	8	3
Totals	(100)	(51)	(120)	(41)	(40)	(96)	(123)	(99)	(106)	(48)	(33)	(77)	(51)	(26)	(31)

Table 5.15 Likely to be Offered Chair at British University?
Table 5.16 More or Less Likely than Others?
} by Subject and Research Orientation (index) (per cent)

Likely to be Offered Chair?															
Already offered	4	10	3	13	18	3	2	4	2	2	3	4	4	4	0
Almost certainly	5	4	2	8	3	4	1	0	0	4	3	1	4	8	0
Quite probably	18	14	13	33	13	11	22	12	9	29	12	8	31	20	26
Possibly but not probably	45	45	44	35	38	27	42	42	30	52	61	32	42	32	32
Almost certainly not	26	27	28	13	35	55	34	42	59	10	21	51	19	36	42
		$\Delta = 12$*			$\Delta = 42$			$\Delta = 25$			$\Delta = 41$			$\Delta = 23$	
Totals	(101)	(51)	(117)	(40)	(40)	(94)	(125)	(98)	(105)	(48)	(33)	(77)	(52)	(25)	(31)

*Δ is the percentage difference between "researchers" and "teachers" who believe they "will almost certainly not" be offered a Chair at a British university.

5.16

More or Less Likely than Others?															
Already offered	4	10	3	13	18	3	2	4	2	2	3	4	4	4	0
More likely	23	22	11	35	10	10	22	9	8	40	15	6	25	40	23
About the same	46	45	48	30	43	43	60	64	51	40	64	51	54	36	65
Less likely	26	24	38	20	30	40	17	21	38	19	15	35	10	16	13

Totals (same as above)

Key to Columns: R = Research B = Both T = Teaching in answer to all three questions men with primarily teaching orientations rate their chances of a Chair consistently lower than researchers. There is least difference when they are asked about their prospects at their present university, where they all rate their chances as small, and teachers not greatly smaller than researchers. When they are asked about their prospects at any British university (Table 5.15) they are more sanguine, and the variations between subjects are larger. The sharpest differences between teachers and researchers are to be found among social scientists and technologists, i.e., those areas where research activity is lowest. In both areas, one half of the "teachers" are almost certain they will not gain a Chair, as compared with only about 1 in 10 of the researchers who are that pessimistic about their own chances. In those subjects, presumably, the dedicated researcher is rarer and more conspicuous; and his prospects in a period of expansion are very good. Indeed, in social science, well over half the researchers think it at least "quite probable" they will be offered a Chair. But while there are differences among subjects, in general teachers and researchers accept, or at least recognize, that their orientations will affect their chances of gaining a Chair.(6)

Academic aspirations

We now turn from the expectations of our groups of academic men to their hopes and aspirations. It was perhaps not surprising that their interests in academic life affected their judgements of their future prospects. We can now ask, first, whether these orientations in fact affect the likelihood of their applying for jobs elsewhere; and, secondly, whether they affect the nature of the job that they aim for or aspire to. Table 5.17 (on the following page) presents data on whether they have applied for a job during the past year, and whether they anticipate applying during the next three years. With regard to applications for posts in the previous year, differences between researchers and teachers are small. But when we turn to their future plans, we find that natural scientists, technologists and teachers of medicine are all distinctly more likely to anticipate applying elsewhere if they are researchers than if they are teachers. If we add the last two lines of the table, those who "probably" or "almost certainly" will apply for a post elsewhere, we find that 39% of researchers and 24% of teachers in natural sciences; 44% of researchers and 20% of teachers in technology; 43% of researchers and 28% of teachers in medicine, anticipate applying elsewhere. Only in arts (22% and 24%) and in social science (31% and 27%) are there no real differences. This is in line with our previous findings: not only do researchers have a higher expectation of promotion to high rank, but they also act on their expectations by applying for new jobs more often. From another perspective, a primary interest in teaching turns one's energies and affections inward toward the institution--toward one's students, one's colleagues, one's syllabus. It is likely to engender "local" as over against "cosmopolitan" orientation(7)--an attachment to a community of fellows rather than to the alternative international society of the discipline. All this would tend to reduce a man's inclination to move.

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(6) It would be useful if we could look also at academic men's assessments of their chances for Senior Lectureships and Readerships, to see whether, as we suppose, teachers expect to fill the former post and Readers the latter. Unfortunately, the only question asked was doubly inadequate for this purpose, in that it combined the two grades and asked about the chances of one or the other, and also introduced a limited time element. Whether as a result of this, or because men assess their prospects by different criteria than they use for the Professorship (which we doubt), a tabulation showed no distinguishable pattern of relationships in any subject.

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(7) On the distinction between "local" and "cosmopolitan" orientation, see our discussion in Chapter VI and references there.

Table 5.17 Have or Will Apply for a Post in Past Year/Next Three Years, by Subject and Research Orientation (index)
Table 5.18 Have or Will Apply for a Post, by Age and Research Orientation (index) (per cent)

5.17 Applied last year/will in next three years	Arts R	Arts B	Arts T	Social Science R	Social Science B	Social Science T	Natural Science R	Natural Science B	Natural Science T	Technology R	Technology B	Technology T	Medicine R	Medicine B	Medicine T
Applied in past year	21	19	24	31	38	25	23	19	17	18	27	20	20	30	31
Almost certainly will not	44	47	42	31	38	41	30	33	40	22	27	44	31	53	49
Probably will not	33	26	33	35	31	31	31	37	35	30	34	33	23	15	20
Probably will	16	10	15	23	17	16	25	17	11	38	22	19	23	15	14
	22	20	24	31	30	27	39	29	24	44	37	20	43	30	28
Almost certainly will	6	10	9	8	13	11	14	12	13	6	15	1	20	15	14
Totals	(124)	(72)	(140)	(48)	(48)	(114)	(145)	(115)	(119)	(50)	(41)	(85)	(64)	(40)	(35)

Key to Columns: R = Research B = Both T = Teaching

5.18 Applied last year/will in next three years	Under 30 R	Under 30 B	Under 30 T	30-34 R	30-34 B	30-34 T	35-39 R	35-39 B	35-39 T	40-44 R	40-44 B	40-44 T	45-49 R	45-49 B	45-49 T
Applied in past year	29	27	27	24	31	32	21	35	31	25	33	19	7	6	10
Almost certainly will not	21	29	23	15	19	25	22	25	31	37	42	33	73	66	69
Probably will not	27	29	35	35	41	41	37	29	34	34	29	48	21	24	19
Probably will	38	27	24	30	22	20	24	28	20	22	4	11	5	6	7
	51	42	42	47	36	32	40	44	32	26	26	19	6	8	10
Almost certainly will	13	15	18	17	14	12	16	16	12	4	22	8	1	2	3
		△ = 9*			△ = 15			△ = 8			△ = 7			△ = -4	
Totals	(101)	(48)	(62)	(104)	(59)	(92)	(82)	(80)	(121)	(73)	(45)	(73)	(92)	(108)	(186)

*△ is the percentage difference between "reseachers" and "teachers" in the proportions who "probably" or "almost certainly" will apply for a post in the next three years.

Table 5.18 (see page V-19) gives a breakdown by age instead of subject, since it may be that the differences in plans and aspirations (and mobility) are more pronounced at one stage in an academic man's career, when the teacher might be settling down to his regular job, whereas the researcher is seizing the moment to advance his career. If we add the two bottom lines as before, we find that the biggest difference between teachers and researchers comes in the 30-34 age group. The under 30 group is, in fact, the most likely overall to apply for new jobs, and each group after it shows a successively smaller proportion who are inclined to move. But the difference between teachers and researchers is sharpest from 30-34, which is the period when with the probationary grade of Assistant Lecturer safely behind the teacher can forget about proving himself, and settle into the teaching duties he enjoys, while the researcher has by now published enough to make himself known, and has reached an age where it is possible to begin applying for a post in the senior grade. Nearly half the researchers in that age bracket "probably" or "almost certainly" will apply for a post within three years, as compared to only a third of the "teachers."(8)

Retention in British academic life

It is by now clear, and will become more so in the next section, that British academics have different work habits, different expectations of the future, and even different styles of life, depending on the subject they teach and their preference for teaching or research. It is therefore at least arguable that unless the university system can cater to all of them by providing them with appropriate satisfactions, some may be much more dissatisfied than others. We have one or two questions that deal with their satisfaction with their jobs; most of these are comparative, but one possible indicator of satisfaction has a very clear meaning. They were asked whether they had ever seriously considered leaving academic life permanently. The results are shown in Table 5.19 (on the following page). Social science and medicine show the highest level of dissatisfaction overall, and the numbers who have seriously considered leaving in arts and natural science--less than one man in five--are, all things considered, surprisingly small. But the most interesting finding concerns the different research orientations. In arts, technology and medicine the teachers seem to be most dissatisfied, and researchers most satisfied. In social science and natural science the reverse is the case--researchers are dissatisfied and teachers are satisfied. If we may take the two cases of arts and natural science to discuss, as being the longest established, and hence perhaps less susceptible to growing pains, we can note, first, the very different opportunities available in these two fields. A good researcher in the natural sciences can take his talents anywhere, and the university is only one of many places in which he could work. Moreover, there have been many complaints in recent years by scientists about the difficulties of doing experimental research in British universities. A teacher-scientist, however, cannot easily find any other job that will give him the same satisfaction. In the arts, however, the reverse is the case. An arts researcher will find it almost impossible to find a similar job elsewhere, aside from the advantages such as library facilities that he possesses at present; while a good teacher can probably find many jobs that are near enough what he has been doing to satisfy him. But, though this question of opportunities may encourage leaving academic life, it does not entirely explain the differences. For this purpose we should rather ask what it is in natural science that makes researchers want

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(8) In the Appendix we present and discuss a series of findings (Tables 5.57-62) on the preferences of researchers and teachers for different kinds of universities.

Table 5.19 Have Your Ever Seriously Considered Leaving Academic Life Permanently? by Subject & Research Orientation (index) (per cent)

Considered leaving?	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Considered seriously	23	16	16	20	36	23	28	20	21	18	20	27	27	31	35	41
Considered, not seriously	28	28	16	29	21	40	18	33	25	23	42	34	36	23	22	32
Not considered	49	56	68	51	43	36	54	46	54	59	38	39	37	44	43	26
Totals	(1201)	(117)	(68)	(136)	(47)	(47)	(111)	(142)	(112)	(117)	(50)	(41)	(83)	(61)	(37)	(34)

Key to column headings:
R=Research
B=Both
T=Teaching

to leave, and in arts that discourages teachers. There is a very common answer to the former question--namely, money. It may well be much harder for a young scientist in Britain to obtain funds for his research in a university than in another all-research institution or a private firm. We shall return to this question later on.

There is another alternative to leaving academic life altogether, and that is simply to leave the British university system and take a job in a foreign university. Our subjects were asked if they had considered taking a permanent post in a foreign country, and if so, where. (See Tables 5.20 and 5.21 on the following page.) The proportions who had considered this latter step are noticeably, indeed perhaps alarmingly, higher: in only two groups was it less than one third. Here we find (Table 5.20) that only in arts was there no real difference between researchers and teachers: in all other subject areas researchers were more likely to consider emigrating than teachers. (In the natural sciences half the researchers, as compared with only a third of the teachers, have considered emigrating.) As to where they had considered going, the only noticeable difference in Table 5.21 is that researchers most frequently think of going to the U.S.A., while teachers in every area lean toward the Antipodes. This, considering the comparative wealth of academic resources in the United States, does confirm the suspicion that it is lack of research funds that motivates researchers to consider leaving Britain, if not academic life altogether.

Attitudes to research: the emphasis on it, opportunities for it, and rewards in it

We began Chapter IV by defining the groups whom we have referred to as teachers and researchers. We combined two items in the index that we are

Tables 5.20-21 Have you considered accepting a permanent post in a university abroad? by Subject and Research Orientation

5.20 Considered a post?	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Yes	38	35	43	33	45	33	32	51	29	33	36	28	32	56	53	43
Totals	(1237)	(123)	(71)	(139)	(49)	(48)	(114)	(145)	(115)	(119)	(40)	(40)	(85)	(64)	(40)	(35)

5.21 If so, where?	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Canada	18	16	23	19	15	24	12	17	20	22	21	27	19	6	21	9
Australia or N.Z.	30	23	20	30	27	24	32	28	35	39	25	33	28	29	31	41
U.S.A.	34	37	30	33	46	28	22	42	27	19	50	27	28	52	34	36
Africa	9	11	11	10	9	8	26	5	6	10	4	0	11	4	10	9
Elsewhere	9	12	16	8	3	16	8	8	12	10	0	13	15	8	3	5
Totals	(534)	(56)	(44)	(73)	(33)	(25)	(50)	(104)	(49)	(59)	(28)	(15)	(47)	(48)	(29)	(22)

Key to column headings:

R=Research
B=Both
T=Teaching

using, and as a result our researchers are men who have a personal preference for research over teaching, and consider research as an essential part of the academic role. Our "teachers" prefer teaching in their own lives, and do not see research as necessarily a central part of their professional role. We showed that these expressions of preference were also reflected in the behavior of our subjects, in that researchers have written more articles and do more research during term. But we asked our respondents many other questions about research activities: about the emphasis placed on it by colleagues and by the universities in which academic men work, about the satisfactions felt in research and in other parts of the life of an academic man, about our subjects' opinion of the quality of their own departments, and about the opportunities available to them for doing research. In the following section we shall explore each of these in turn.

Attitudes toward institutional emphasis on research

Our respondents were asked whether they thought that "most university teachers in my subject put too much emphasis on teaching compared with research." Very few of our respondents in any field felt strongly that most of their colleagues overemphasized teaching; fewer than a quarter overall believed so, even with reservations. (See Table 5.22 on next page.) Within that broad pattern, it is scarcely surprising that in every subject researchers tended to agree that there was too much emphasis on teaching, and teachers disagreed more often. But the figures bear a closer examination. We saw in Chapter IV (see, in particular, Table 4.17) that in natural science and medicine the smallest proportion of men emphasized teaching, more in arts, and still more in social science and technology. This being so, we might expect to find "teachers" in medicine and natural science disagreeing

Table 5.22 "Most university teachers in my subject put too much emphasis on teaching compared with research" by Subject and Research Orientation (index) (per cent)

Over-emphasize Teaching	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Strongly agree	4	11	1	1	9	6	4	4	1	0	4	2	1	6	8	6
Agree with reservations	13	23	10	8	20	23	12	13	5	3	22	12	7	21	18	14
Disagree with reservations	49	48	56	49	53	40	50	50	58	44	43	59	43	44	46	46
	74	66	89	91	71	70	85	83	94	96	74	86	92	73	74	80
Strongly disagree	35	18	33	42	18	30	35	33	36	52	31	27	49	29	28	34
Totals	(1220)	(122)	(70)	(139)	(45)	(47)	(112)	(145)	(113)	(117)	(49)	(41)	(84)	(62)	(39)	(35)

Table 5.23 "Do you feel under pressure to do more research than you would like to do?" by Subject and Research Orientation (index) (per cent)

Feel under Pressure	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Yes, a lot	4	4	3	7	0	2	6	3	3	4	2	7	9	3	3	3
	18	12	7	26	2	12	25	9	19	26	16	14	38	8	3	29
Yes, a little	14	8	4	19	2	10	19	6	16	22	14	7	29	5	0	26
No	82	88	92	73	98	88	74	90	81	73	83	83	61	91	98	71
Totals	(1231)	(124)	(72)	(140)	(49)	(48)	(114)	(146)	(115)	(119)	(48)	(41)	(85)	(64)	(40)	(35)

Key to column headings: R = Research
B = Both
T = Teaching

particularly strongly with this statement, and "researchers" in social science and technology agreeing particularly strongly, since these appear to be the groups who would have reason to be most dissatisfied with the status quo in their subjects. In fact, the results are somewhat different. Fifty-two per cent of teachers in natural science strongly disagreed that there is "too much emphasis on teaching" (the highest proportion among these categories), but the group nearest them was in technology (49%) followed by arts (42%), social science (35%) and lastly medicine (34%). If we add in those who disagree "with reservations" we find that the order does not change. In the natural sciences the teachers were almost unanimous (96%) in agreeing that teaching is not overemphasized, but again medicine is most different with 80%. In other words, a high proportion of teachers in all subjects felt that teaching was not overemphasized by most men in their subjects, but this proportion was not consistently higher in those subjects where we have found teaching to be least emphasized. There is a similar anomaly in the "researchers" feelings. Only 17% of them feel that teaching is overemphasized in natural science, while in social science and technology where, if anywhere, the statement has some basis in fact, 29% and 26% respectively agree. But in medicine the figure is 27%, and in arts it is 34%. Evidently arts, despite its relatively high number of research scholars, has the image of a "teaching" subject. In natural science the battle is evidently thought to have been won by the researchers; in medicine and arts it would seem that it has been won (certainly in medicine), but there is discontent among the researchers; while in social science and technology there is astonishingly little concern even among the researchers that the battle for research might be lost.

Table 5.23 (see page V-26) reports on the pressure felt by our respondents to do more research than they would like. Very few men, whatever their major subject or research interest, felt under "a lot" of pressure to do more research. Even if we include those who felt at least "a little" pressure to do more research than they wish, the proportions are still, for the most part, under 30%. As might be expected, in every field those who see themselves as "teachers" feel under more pressure: in four fields, the proportions among the "teachers" who feel under some pressure varies between 25% and 30%. The highest proportion who feel these pressures (37%) is found in the group which is least research-oriented--the "teachers" in technology--where the pressure from other colleagues in their faculty should be low. (Even of the "researchers" in technology, 16% felt under pressure to do more. It would be interesting to learn where the pressure comes from.) But by and large, these data suggest that the university system seems able to accommodate teachers as well as researchers without placing too much pressure on them to change their direction of interest.(9)

But the tension between teachers and researchers in British universities is sharper than the question about unwanted pressure would indicate. When we turn to the delicate issue of the bases for promotion, we find very marked differences between "teachers" and "researchers" in every field. The question was put: "Would you agree or disagree that promotion in academic life is too dependent on published work and too little on devotion to teaching?" In Table 5.24 (on the following page) we can see the marked suspicion with which

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(9) It would be interesting to see comparative data for American universities which are supposed to be governed by the jungle law of "publish or perish." Certainly we would expect higher proportions to complain about these pressures to do more research than they wish, but the variations among fields, and between institutions of varying quality, would be most illuminating of the research climates in American colleges and universities. It would also be worth asking, both in Britain and America, where these "pressures" emanate, and what effect they have on the quantity and quality of research done in different departments and universities.

Table 5.24 "Promotion in academic life is too dependent on published work and too little on devotion to teaching," by Subject and Research Orientation (index) (per cent)

Promotion too dependent on publishing	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Strongly agree	32	13	28	44	15	19	41	16	27	54	27	44	67	14	26	34
	76	44	77	91	54	79	94	64	80	93	60	84	99	58	76	83
Agree with reservations	44	31	49	47	39	60	53	48	53	39	33	41	32	44	50	49
Disagree with reservations	18	39	18	7	37	19	5	24	20	5	31	15	1	37	21	14
Strongly disagree	5	17	6	1	9	2	1	12	0	2	8	0	0	5	3	3
			△* = 47			△* = 40			△* = 29			△* = 39			△* = 25	
Totals	(1228)	(122)	(72)	(140)	(46)	(48)	(112)	(144)	(113)	(119)	(51)	(41)	(84)	(63)	(38)	(35)

*△ = % agree (teachers) - % agree (researchers) Key: R = Research B = Both T = Teaching

Table 5.25 Promotion Too Dependent on Published Work, by Research Orientation (index) & Rank (per cent)

Promotion too dependent on publishing	All Respondents	Research					Both					Teaching				
		P	R	SL	L	O	P	R	SL	L	O	P	R	SL	L	O
Strongly agree	32	2	10	22	18	21	15	24	40	28	32	31	47	54	54	43
Agree with reservations	44	40	50	36	41	40	48	48	36	58	57	58	50	44	38	51
Disagree with reservations	18	47	32	27	29	33	29	27	22	14	11	12	0	2	6	5
Strongly disagree	5	12	8	15	12	7	8	0	2	0	0	0	3	0	2	0
Totals	(1228)	(58)	(50)	(55)	(239)	(43)	(65)	(33)	(50)	(160)	(28)	(59)	(36)	(97)	(302)	(37)

Key: P = Professor SL = Senior Lecturer O = Other
R = Reader L = Lecturer

research (perhaps the contemporary emphasis on research) is viewed by many academics, even by many researchers. If we disregard subject for the moment, 32% of our total sample "agree strongly" that promotion is "too dependent" on publication; and fully 76% agree strongly or with reservations. Differences between "teachers" and "researchers" on this question are, of course, quite large. Medicine apart, over 90% of the "teachers" in our sample agree with the statement, as compared with between two thirds and two fifths of the "researchers." The percentage difference between "teachers" and "researchers" (in the combined "agree" categories) varies from 25% and 47%, and is largest in the arts where the research and teaching traditions are in sharpest conflict, and where a fair number of research scholars are not sure that research is yet given enough weight in academic advancement.

Nevertheless, it is still surprising that large numbers of researchers--largest of all in the natural sciences with the strongest research traditions--agree that research is given too much and devoted teaching too little weight in academic promotions. In part, we might see this as one of the academic pieties: academics are always in favor of giving more "recognition to teaching." But these sentiments, expressed both by teachers and researchers, may be evidence of a widespread conception of the university as primarily (or at least equally) a teaching institution. In the British context (but perhaps in any modern society) this is a conservative sentiment, an expression of concern about the changes in higher education associated with the explosion of knowledge, the rationalization and expansion of research activity, and the resulting threatened transformation of the university into a major force for planned and unplanned social changes of all kinds.(10)

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(10) This is Clark Kerr's vision of the mission of the "multiversity," as the central institution of "the knowledge industry." See The Uses of the University, Cambridge, Mass., Harvard University Press, 1963, pp.86ff.

These concerns about the effects of research on the character of British universities and the academic career are largely independent of the academic man's own situation and experience. For example, in Table 5.25 (see page V-29) we compare the sentiments regarding the role of publication in promotion among men in different ranks and with different orientations to teaching vs. research. We might expect that teaching-oriented men in senior ranks would be reasonably assured of the possibilities of promotion for dedicated teachers (like themselves). In fact, we see that such men are extremely likely to fear an overemphasis on research publication, despite their own experience. The persistence of this concern, in the face of one's own experience, suggests that it is not merely a judgement of promotion practices in British universities, but rather, as we suggest above, a reflection of underlying concerns about the nature and direction of universities and their relation to society and to social change.

The relative rewards of research and teaching

We discussed earlier how much research was, in fact, done by "researchers" and "teachers"; but one question that was not touched on was how much teaching was done by them. We do not have data on this, but we have answers to questions about how much they enjoy research and teaching and, also, how enjoyable they find one other aspect of academic life--contact with students. These findings are given in Tables 5.26-28 (to be found on the following page). It is scarcely surprising that in every subject "teachers" should enjoy teaching much more than researchers, though there are differences between the subjects. Natural scientists, and those in technology and medicine do not enjoy teaching quite as much as those in arts and social science. More interesting, however, are the differences between the subjects in the

Tables 5.26-28 Enjoyment of University Activities, by Subject and Research Orientation (index) (per cent)

	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
5.26 Enjoy teaching																
Very much	68	59	74	91	50	62	89	48	65	82	37	56	85	40	59	83
Moderately	30	38	26	9	44	38	11	49	35	18	63	44	14	55	38	17
Very little	2	3	0	0	6	0	0	3	0	1	0	0	1	5	3	0
5.27 Enjoy Contact with Students																
Very much	67	54	69	82	62	70	84	52	64	78	45	63	76	44	64	74
Moderately	31	44	29	18	36	30	15	41	34	21	55	37	24	52	33	23
Not at all	2	2	1	1	2	0	1	7	2	1	0	0	0	3	3	3
5.28 Enjoy Research																
Very much	76	96	86	65	96	77	46	93	86	60	96	83	47	94	78	46
Moderately	21	4	12	30	4	19	43	7	13	36	4	17	48	6	18	46
Not at all	3	0	1	4	0	4	11	0	1	3	0	0	5	0	5	9
Totals (vary slightly)	(1237)	(124)	(72)	(141)	(49)	(47)	(113)	(146)	(116)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

Key: R=Research
B=Both
T=Teaching

proportion of researchers that enjoy teaching. In arts, nearly 60% of researchers say that they enjoy teaching very much: the proportion drops to around a half in social science and natural science, while of those in technology and medicine only just over one third enjoy teaching "very much." It appears that the arts, where a majority even of those whose primary interest is in research enjoy teaching very much, deserve their reputation as the core of the "teaching" university. It is interesting that in medicine and technology, where the research tradition is, respectively, strongest and weakest, fewest researchers enjoy teaching. But these are the most clearly "professional" subjects, where teaching is most nearly a by-product of research.(11)

Table 5.28 gives the proportions in the several subject areas who enjoy research. Naturally enough, once more researchers turn out to enjoy research much more than teachers (though it is gratifying to find that our index discriminates effectively and is validated in this way). Researchers in different subjects do not differ greatly in their enjoyment of research. But there are interesting differences among the teachers. In arts 65% of the teacher group also enjoy research very much. In natural science 60% do so, but in the other three subjects the proportion is 46%. Once again we have the impression of arts as a subject that is less strongly differentiated into teachers and researchers than any of the others: more of its researchers enjoy teaching, and more of its teachers enjoy research.

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(11) Table 5.27 gives the percentages who "enjoy their contact with students." The results are very similar to those for teaching, with the exception that differences between extremes are smaller--those groups which very much enjoy teaching enjoy contact with students slightly less, while those who only moderately enjoy teaching enjoy contact with students slightly more. The only other difference is that social scientists in each group enjoy contact with students more even than arts men, whereas arts men enjoy teaching most of all.

We also raised the more general question not merely of whether our academic men enjoyed particular aspects of their work, but whether they were satisfied to be working in their present subject. Tables 5.29-30 (below) show the answers to two questions, first, whether our respondents were pleased with having chosen their present subject, to which an overwhelming majority in every subject answered yes; and secondly, whether they ever regretted that they had not chosen another field. This question did produce some expressions of discontent--approximately 25% of the total sample, fairly evenly distributed among the subjects and between those with different research orientations. (Here the researchers in medicine and technology are at opposite extremes, reflecting the research situations in their disciplines.)

Tables 5.29 Liking for Subject, and Regret for Another, by Subject and Research Orientation (index) (per cent)

5.29: Are you pleased with having chosen your present subject:

		Arts			Social Science			Natural Science			Technology			Medicine		
	All	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Yes	95	92	94	96	96	94	95	97	95	97	96	98	89	94	95	97
5.30 Do you sometimes regret that you did not choose another field:																
Yes	24	23	19	28	18	29	28	21	22	19	31	29	26	16	25	23
Totals	(1233) (vary slightly)	(124)	(72)	(141)	(49)	(48)	(111)	(146)	(115)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

Key to column headings: R=Reader; B=Both; T=Teaching

Assessment of own department's teaching and research

It would be interesting to know to what extent teachers and researchers congregate in departments that are in any way singled out or respected for research or teaching. We have no way of identifying the "better" or more widely respected departments. But we do have the assessments made by our respondents of their own department's qualities, which will enable us to see if there is any consensus among teachers that they are in good teaching departments, etc. The results are shown in Tables 5.31-35 (see page V-36).

It is interesting to see, first of all, how very few men consider their department below average quality in undergraduate teaching.(12) In all the other respects in which they were asked to rate their departments there is some bias towards the "above average" end; this is probably natural enough. But the bias is much more pronounced here. There are several possible interpretations of this. It may be that it is almost impossible to admit that a department's undergraduate teaching is bad, since this is too fundamental to the nature of a department and would be too damaging to its members' self-respect. But we might expect that "researchers" would not be so affected by this problem and, in fact, they seem just as unwilling as the rest to judge their departments "below average" in this respect. Moreover, the "research and scholarship of its staff" is presumably even more central to a department's self-esteem, and more people seem prepared to rate this below average. The alternative interpretation, which may well be correct, is that our respondents simply do not know what "average" standards of undergraduate education are. Undergraduate teaching ability is notoriously difficult to judge among individuals and must be still more so between departments. There is little in the way of concrete evidence that could be used, and it is likely that academic men do not have any yardstick by which to compare their own department, or even know very clearly what their department is like itself.(13)

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(12) The tendency of academic men to exaggerat[illegible]uality of their own departments is widespread. See, for exampl[illegible]rd Berelson, Graduate Education in the United States, New York, Mc[illegible]ll, 1960.

(13) This is one reason why it is difficult to [illegible] more weight to "teaching" in promotion, and why, also, it is easy and inexpensive to urge that that be done.

Tables 5.31-35 Assessment of Department's Qualities, by Subject & Research Orientation (index) (per cent)

	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
5.31 Undergraduate Teaching																
Above average	56	61	54	72	57	56	62	50	47	53	59	55	57	39	42	58
Average	39	37	40	25	37	33	29	43	50	43	35	45	38	50	55	33
Below average	5	3	6	3	6	11	9	8	4	4	7	0	5	11	3	9
5.32 Postgraduate Training																
Above average	30	32	26	19	34	52	38	30	27	25	50	32	41	31	46	36
Average	48	41	41	50	41	28	32	51	60	54	37	46	36	41	29	36
Below average	22	27	33	31	25	20	30	19	13	21	13	22	23	29	26	27
5.33 Research and Scholarship of Staff																
Above average	36	45	39	28	50	46	28	36	31	28	45	33	33	49	42	15
Average	50	49	50	57	45	32	44	53	54	57	47	50	46	38	44	61
Below average	14	6	11	14	5	22	29	12	15	15	9	17	21	13	14	24
5.34 Size & Breadth of Coverage of Field																
Above average	45	52	42	55	58	57	51	42	32	39	48	30	41	46	28	29
Average	41	36	42	37	18	31	36	38	50	42	46	62	48	44	53	50
Below average	14	12	16	8	24	12	12	20	19	19	6	8	11	10	19	21
5.35 Responsiveness to New Ideas																
Above average	42	38	38	40	48	56	47	45	37	30	53	35	46	55	31	29
Average	44	44	45	39	39	38	43	37	51	59	38	43	43	37	47	56
Below average	14	17	17	21	14	5	11	18	12	11	9	22	11	8	22	15
Totals	(1288)	(124)	(72)	(141)	(49)	(48)	(114)	(146)	(116)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

Key to Columns: R = Research B = Both T = Teaching

Be this as it may, we find little difference between teachers and researchers in their assessment of their own departments' undergraduate teaching. With respect to postgraduate training, similarly, the difference between teachers and researchers in their assessment of their own departments is small (Table 5.32)--this, despite the fact that postgraduate training is quite different in character from undergraduate education, resembling a master-apprentice relationship instead of the teacher-pupil relations of the undergraduate years. And much of postgraduate training, in some cases all of it, consists of supervision by a faculty member of the student's research. We should expect postgraduate training to be best in departments with a good research reputation, and less good where they are known for undergraduate education. But it may be that men with research orientations use severer criteria in judging the quality of post-graduate training offered by their department, and that this obscures differences between them and other teachers in Table 5.32.

Table 5.33 deals with assessments of the "research and scholarship of the staff" of a department. Unfortunately for our analytical purposes, though fortunately for universities and students, scholarship is not an attribute that is confined to researchers. Thus we are asking here about the overall qualities of the members of the department as academic men, though the form of the question places a certain emphasis on research. At any rate, we find quite clearly that in every subject researchers consider their departments better in terms of research and scholarship than do teachers. The difference is relatively large in medicine, social science and arts, smaller in technology and natural science. If they are basing their replies mainly on the research abilities of the staff, then this tells us simply that researchers either concentrate themselves, or at least believe that they do so, in departments with better than average researchers among the faculty. But if the replies also take into account overall scholarship, then the concentration is in the best departments altogether, which has a somewhat wider significance. Before we discuss this further, we should look briefly at the two tables. From Table 5.34 we learn that medicine apart, researchers do not see themselves in larger or broader-ranging departments than teachers; in Table 5.35, again with the exception of medicine, researchers do not on average see their departments as more responsive to new ideas than do teachers.

To sum up, when asked to assess various aspects of their own departments, apart from medicine teachers and researchers show few differences except in the assessment of the quality of research and scholarship of the staff. On that question, the researchers rank their own departments high somewhat more often than do the teachers. It may be that researchers are indeed somewhat more concentrated in stronger departments; or it may be that they simply know more about the quality of the scholarly work in their departments; or, most plausibly, that they rank their departments high on the one criterion that matters most to them.

But we cannot tell much about the objective qualities of departments from these reports, in part because we cannot choose between alternative interpretations of differences we do find, in part because the absence of differences may be the product of different criteria of assessment that are in fact masking or obscuring real differences between the departments that research people or teachers congregate in. This is a distinct gap in the present study, and leaves unanswered a number of questions that are worthy of investigation.

Perceived opportunities and difficulties for doing research

We now have to ask what are the conditions under which research is done? For almost all university men it is only one of a number of demands on their time; moreover, there may well be other constraints besides lack of time which prevent them from doing as much research as they might like. Our respondents were given a list of possible handicaps to research which they might experience, and asked to check as many as they felt were major handicaps to them. The results are shown in Table 5.36 (see next page). As we might expect, teachers (in all subjects except social science) blame their teaching commitments more than do researchers; but, interestingly enough, they also blame other demands on their time more than do researchers. For all groups, however, the pressure of time is the most important handicap. The other possible handicaps are felt by researchers more than by teachers; this is natural, since they are essentially difficulties experienced in the course of research; whereas, lack of time is for teachers (though evidently not for researchers) a discouragement from undertaking research. Taking them in order, insufficient financial resources are blamed by a fairly large proportion of all groups; but the lack of finance is particularly felt in social science, natural science and technology, which are typically the more expensive fields for research. The slowness of machinery for obtaining equipment or books does not seem very important to arts and social science; but it is a substantial handicap to researchers in science and technology. Insufficient contact with other workers is again blamed by natural science, technology and medicine more than by arts and social science; and in the latter it is not felt much more by researchers than by teachers. Arts and social science, on the other hand, complain more of insufficiencies in their libraries, and this is most frequently felt by researchers in those fields.

Table 5.36* Handicaps Experienced in Research, by Subject & Research Orientation (index) (per cent)

Major Handicaps	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Insufficient time because of teaching commitments	52	59	61	67	60	57	58	42	41	64	36	49	68	24	21	35
Insufficient time because of other commitments	54	52	55	58	58	57	59	45	44	55	43	65	49	58	66	68
Insufficient financial resources	38	38	31	24	49	31	37	51	45	30	62	32	30	35	53	26
Slowness of machinery for obtaining equipment &/or books	21	16	22	11	16	12	8	36	29	21	43	19	16	24	18	18
Insufficient contact with other workers in your field	24	22	21	19	20	21	23	31	35	19	38	27	19	27	16	15
Insufficiencies in your library	25	37	34	28	42	29	28	21	20	18	21	19	16	27	13	3
Unresponsiveness of university administration to your needs	14	16	15	8	18	19	10	17	15	10	17	14	6	24	18	6
Unresponsiveness of department or college administration to your needs	14	17	12	9	18	17	8	15	19	9	19	5	15	18	24	18
Totals	(1153)	(114)	(67)	(132)	(45)	(42)	(106)	(141)	(108)	(107)	(47)	(37)	(80)	(55)	(38)	(34)

*percentages add up to more than 100%, since multiple answers were allowed.

Unresponsiveness to research needs, whether on the part of university or departmental administrations, is blamed roughly equally by all subjects, and more by researchers: medical researchers seem particularly to blame university administrations. It is interesting, too, that apart from the first two handicaps, affecting the time available, researchers in technology complain more about every other handicap (except library facilities) than any other group. However, when asked to say simply how adequate their resources for research were (Table 5.37 on next page), rather than to check the different kinds of handicaps experienced, we see that of the researchers in arts and social science 53% said they were adequate or better; in natural science, 58%; in medicine, 67%; and in technology, 73%. Technologists may have many different causes for complaint, but it seems that fewer of them feel seriously handicapped by lack of resources than do researchers in other fields.

If we now compare researchers and teachers within fields, we see, somewhat unexpectedly, that aside from the natural sciences researchers are as likely to feel that resources for research are adequate as are teachers. Common sense would suggest that those who make chief use of these resources are more likely to feel their inadaquacies. But this seems not to be generally the case: on the contrary, the men who do research are, if anything, somewhat more satisfied with the resources for research than are the teachers. It does not seem to be inadequate resources that inhibit teachers from doing more research.

Finally, our respondents were asked whether they thought the support their subject receives in the university system is more or less than it deserves (Table 5.38, next page). In no subject was any significant number of people prepared to say that their subject was better supported than it deserved, though there were very wide differences between subjects in the

Table 5.37 "Apart from time, are the resources available to you adequate for your research?" by Subject & Research Orientation (index) (per cent)
Table 5.38 "In the general pattern of British universities, how much support does your subject receive?"

5.37 Are Resources Adequate	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Excellent	17	21	29	19	10	13	8	14	10	20	18	20	20	22	30	26
	61	53	57	60	53	54	53	58	63	72	73	69	70	67	65	75
Adequate	44	32	28	41	43	41	45	44	53	52	55	49	50	45	35	49
Somewhat inadequate	31	32	33	32	37	43	37	36	30	24	18	29	28	28	28	20
Highly inadequate	7	14	10	8	10	4	11	6	6	3	8	2	1	5	8	6
Totals	(1222)	(120)	(72)	(135)	(49)	(47)	(109)	(145)	(113)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

5.38 How Much Support?	All Respondents	Arts R	Arts B	Arts T	Social Science R	Social Science B	Social Science T	Natural Science R	Natural Science B	Natural Science T	Technology R	Technology B	Technology T	Medicine R	Medicine B	Medicine T
Less than deserved	47	44	44	38	75	57	65	45	31	34	62	51	49	64	38	37
About as much as deserved	52	54	56	59	25	41	33	54	66	63	38	49	51	36	62	63
More than deserved	1	2	0	3	0	2	2	1	3	3	0	0	0	0	0	0
Totals	(1225)	(123)	(71)	(141)	(48)	(46)	(111)	(144)	(115)	(116)	(50)	(41)	(80)	(64)	(40)	(35)

proportions dissatisfied with the support for their own subject. Overall, social science, followed by technology and medicine, felt most underprivileged; natural science was most satisfied. Well over two thirds of the social scientists were dissatisfied, as compared with only a little more than a third of the natural scientists. But in all subjects researchers were somewhat more discontented than teachers, though the differences were large only in technology and medicine. Apparently, British academics feel no contradiction in asserting both that resources for research are generally adequate, and also that they should be greater. This is perhaps a fair reflection of their needs and wishes, and a combination of realities and aspirations that is conducive to the growth of science and scholarship. A cheerful acceptance by academic men of the limitations on resources is surely the attitude least to be desired by wise university administrators or government ministers.

Membership in the "invisible college"--modes of communication and relationship to own subject

We spoke earlier of the concept of the "invisible college"--that network of informal relationships and personal acquaintance which links academic men, and particularly researchers in the same discipline but geographically separated. Our respondents were asked how important they thought various methods of communication were to enable them to keep in touch with current work in their subjects. The results are shown in Tables 5.39-44 (pages V-44 and 45). The journals of academic associations are the main formal channel by which information flows about recent developments in knowledge and thought: and all subjects see them (Table 5.39) as "very important," without distinction between researchers and teachers.

Tables 5.39-44 "How do you keep in touch with current and recent work in your subject?" by Subject & Research Orientation (index) (per cent)

5.39 How important are Journals &/or Bulletins	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Very important	86	76	79	79	90	83	91	88	91	87	86	93	84	92	95	91
Fairly important	14	23	21	21	10	17	9	12	9	13	12	7	16	8	5	9
Not important	0	1	0	0	0	0	0	1	1	0	2	0	0	0	0	0
5.40 Newsletters and Information Bulletins																
Very important	11	6	8	9	9	12	20	10	9	16	6	13	13	12	13	12
Fairly important	26	20	20	19	22	19	31	27	23	31	31	49	45	22	31	30
Not important	63	74	73	72	70	70	49	63	68	63	63	38	42	66	56	58
5.41 Off prints Sent by Colleagues in British Universities																
Very important	15	11	13	11	11	16	9	26	19	16	14	16	15	17	16	6
Fairly important	37	36	38	34	34	21	30	34	49	42	45	42	28	47	32	32
Not important	48	53	49	55	55	53	61	40	32	42	41	42	58	36	53	61
Totals (vary slightly)	(1311)	(124)	(72)	(141)	(49)	(48)	(113)	(146)	(116)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

Continued on next page

	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
5.42 Conversations with Departmental Colleagues																
Very important	42	29	33	37	51	40	43	41	39	39	54	42	44	47	70	64
Fairly important	41	37	47	40	41	38	42	43	44	37	34	42	46	45	28	27
Not important	17	33	20	22	8	23	15	16	18	25	12	15	10	8	2	9
5.43 Conversations with Colleagues in Your Subject Elsewhere in Britain																
Very important	40	26	31	31	33	28	35	56	41	35	65	41	37	59	58	52
Fairly important	42	50	51	45	46	46	48	30	42	43	25	46	43	34	38	30
Not important	18	24	18	25	21	26	17	14	16	22	10	13	21	6	5	18
5.44 Correspondence																
Very important	20	27	17	18	23	13	17	26	18	17	25	24	17	16	21	9
Fairly important	41	39	49	34	43	35	38	37	44	44	51	37	43	55	41	52
Not important	39	34	34	48	34	52	45	38	38	39	24	39	40	30	38	39
Totals (vary slightly)	(1311)	(124)	(72)	(141)	(49)	(48)	(113)	(146)	(116)	(119)	(51)	(41)	(85)	(64)	(40)	(35)

After journals, the next most frequently cited source of "very important" communication was conversation, both with departmental colleagues and with other men in the same discipline elsewhere in Britain. The relative importance of these two kinds of conversation varies both with field and research orientations:. Tables 5.42 and 5.43 should be inspected together. For one thing, we see that over half the research scientists cite conversations with colleagues elsewhere as very important, as compared with a third of the teacher scientists and a quarter of the research men in arts subjects. Here is evidence of the "invisible colleges" that we spoke of, having their greatest importance for research men in fields where the rate of growth of knowledge and high level of specialization make informal oral communication between research men in different universities vital. Teacher scientists would find these contacts less necessary; and arts men do not, for the most part, live at the edge of a rapidly moving frontier, but in the heart of a long-cultivated and slowly expanding realm. The research technologists are even more dependent on oral ties with research colleagues elsewhere, given the relatively low levels of activity in departments of technology, and thus the relatively high dilution of the minority of research oriented university technologists.

Here again the data raise numerous questions about the actual processes of scientific and scholarly communications in different fields, and the relevance of these processes to the amount and quality of research that is done in universities. These are questions that for the moment we can only raise but not answer. For example, why is it that proportionately so many more research social scientists (51%) find conversation with departmental colleagues "very important" as compared with research men in arts subjects (29%)? And, why do these same research social scientists tend to value conversations within their departments more often than conversations with colleagues elsewhere, unlike research men in every other field (in the arts the difference is negligible)?

Here again, as in the preceding section, the survey findings call for further research of a different kind: close detailed studies of the intellectual life of individual academic departments.

After journals and conversation, correspondence is another form of scholarly communication, in many ways performing the same functions as oral conversation with colleagues elsewhere, and for the same reasons it is also cited more often by research men than by teachers. Newsletters and offprints serve to supplement the journals, and, with some variations by field, are about as important to teachers as to researchers.

Correlative attitudes towards other aspects of university life

We now know enough about researchers and teachers to have learned that they are substantially different in many aspects of their lives. They differ in background, in current interests, in future prospects; they are to be found in different concentrations at different places within the university system; and they vary considerably in their behavior and attitudes in most aspects of their work. If they are so different, we might well expect that this would carry over to other aspects of their work situation that are not so obviously connected with teaching or research. One area in which it is likely that they would differ is in their general assessment of the nature of British university education. Table 5.45 (on the next page) gives the responses to a statement offered that "university education in Britain puts too little emphasis on the training of experts and too much on the education of widely cultivated men." On the whole, British academics do not agree that there is too little emphasis on training experts, perhaps because the British

Table 5.45 "University education in Britain puts too little emphasis on the training of experts..." by Subject and Research Orientation (index) (per cent)

Table 5.46 "Valid criticism of the English universities is that they over-emphasize the single-subject honours degree" by Subject and Research Orientation (index) (per cent)

5.45 Under-Emphasize Experts	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Strongly agree	4	4	1	3	4	6	3	7	0	3	0	5	6	0	10	9
Agree with reservations	29	36	16	23	46	21	27	33	21	16	40	32	35	39	43	26
	25	32	15	20	42	15	24	26	21	13	40	27	29	39	33	17
Disagree with reservations	47	49	53	41	46	65	38	54	59	45	44	54	35	45	38	51
Strongly disagree	24	15	31	36	8	15	35	13	19	40	16	15	31	16	18	23
Totals	(1224)	(119)	(72)	(138)	(48)	(48)	(113)	(143)	(113)	(119)	(50)	(41)	(84)	(62)	(39)	(35)

5.46 Over-Emphasize One Subject Degree	All Respondents	Arts			Social Science			Natural Science			Technology			Medicine		
		R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Strongly agree	15	16	18	14	20	19	21	11	8	24	6	8	14	22	16	9
Agree with reservations	58	48	54	62	63	64	73	51	54	66	49	53	60	58	55	68
	43	32	36	48	43	45	52	40	46	42	43	45	46	36	39	59
Disagree with reservations	30	30	19	27	30	34	22	38	30	22	41	35	31	39	34	22
Strongly disagree	12	22	26	11	7	2	5	12	16	12	10	13	9	3	11	9
Totals	(1212)	(122)	(72)	(140)	(46)	(47)	(112)	(144)	(113)	(116)	(51)	(40)	(80)	(59)	(38)	(32)

honours degree is for the most part a specialized research degree even when taught in a liberal way. However, there are differences between teachers and researchers on this issue.(14)

Since researchers in British universities are more likely to be experts, we would imagine that they would more often want to encourage others to travel in the same direction: while "teachers" who by avoiding research have also in many cases avoided specialization and expertise, would be less likely to favor that concept of education. It turns out that this is indeed the case: teachers in most fields are markedly more opposed to the "training of experts" concept of education than are researchers. We should not be surprised that the great majority of academic men are unwilling to come down without qualification either for the "training" of "experts" or the "education" of "widely cultivated men." Most academic men would reject the notion that these ends are incompatible, and many would argue that they are in fact complementary. Nevertheless, the issue persists, if only because the organization of a curriculum forces choices which men can avoid only in rhetoric. And here it is significant that the majority view, even of the "researchers," leans toward the position most strongly held and represented by the teachers.(15)

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(14) And it is an issue. The specialized honours degree has in recent years come under sharp criticism from some English academics, and these have led to less narrowly specialized courses at Sussex and other of the new universities.

(15) Table 5.45 contains one ambiguity in that it asks about "university education in Britain" without specifying whether undergraduate or postgraduate education is meant. And indeed, the nearly half of social science "researchers" who agreed with the statement may have been complaining about the relative paucity of provision for postgraduate training in the social sciences, while the smaller agreement given the statement by natural scientists may reflect the better provision for postgraduate training in the scientific disciplines.

Some support for this supposition can be found in Table 5.46 (page V-50). The proposition was put forward there that "valid criticism of the English universities is that they over-emphasize the single-subject honours degree." To this question the social scientists give relatively high assent, suggesting that they are critical of specialized undergraduate training, while also wanting more emphasis on the training of experts at some point in the system.

Whatever Ministers or industrialists may think, substantial majorities of British academics, as we have seen, do not believe that British universities put too little emphasis on the training of experts. And consistent with this view, critical of expertise and specialization, are the majorities in every field who agree, strongly or with reservations, that "valid criticism of the English universities is that they over-emphasize the single-subject honors degree." (See Table 5.46 on page V-48.) At a time when the growth of knowledge is sharply accelerating, and universities everywhere are emphasizing their contributions to the production of knowledge, British academics are looking askance at their own highly specialized and research-oriented undergraduate degree. The meaning of these sentiments is clear when we see that in every subject area it is the teachers who are most likely to be critical of the single-subject degree: where about half the research men in the arts, natural sciences and technology agree with the criticism, the proportions among the scientist teachers rise to two thirds, and among the social scientist teachers to nearly three quarters. These criticisms have been reflected in university developments in recent years. For example, the new universities have linked their emphasis on improving undergraduate teaching to an attempt to broaden the scope of the first degree, and similar experiments are under way in the recently elevated CATs. But from another perspective, if we see an emphasis on the teaching function of the universities as a more traditional, conservative conception of the universities, then here again we find this position gaining a majority of support from British academic men, and very substantial support even among the dedicated researchers.

It may well be possible to reconcile these preferences for a teaching oriented and less specialized undergraduate degree with the increasing specialization and expansion of knowledge. But that will require far more attention to the organization of postgraduate training than has been given to it by most British universities and disciplines, with the possible exception of the natural sciences. The debate over resources and expansion has dominated British university planning since World War II; but we suspect that in the coming decades the need for growth of postgraduate education will be equally pressing. And if the American experience can teach anything, it is that the growth of graduate training will have effects on undergraduate education as great as the growth of numbers.

Attitudes toward the British school system

If researchers and teachers have differing views about the nature of university education, this could well extend also to the school system in Britain. The reasons for advancing comprehensive schools in England have been mainly political, caused by concern about the social consequences of divided school systems. But there could also be educational reasons for advocating comprehensives, such as the avoidance of too much early specialization and encouragement of experts. Two questions were asked about the school system: the first simply proposed that the present tripartite system of grammar, modern and technical schools should be replaced by a comprehensive system: the second specifically criticized the present secondary education system for "premature specialization." Results are shown in Tables 5.47 and 5.48 (on the following page).

In the case of comprehensive education the differences between researchers and teachers are small. (Attitudes on this question are very strongly related to general political orientations, as we shall see in chapter VII, but political views are unrelated to preferences for research or teaching.) By contrast in Table 5.48 we see that in all five areas teachers are more

Table 5.47 "The Tripartite System...should be supplanted by a system of comprehensive schools" by Subject & Research Orientation (index) (per cent)

Table 5.48 "A serious shortcoming of the presnet system of secondary education is premature specialization" by Subject & Research Orientation (index) (per cent)

		Arts			Social Science			Natural Science			Technology			Medicine		
5.47 Supplanted by comprehensives	All Respondents	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Strongly agree	22	16	24	24	33	22	33	21	14	19	22	24	23	24	28	15
	56	47	54	56	72	81	71	52	54	51	46	58	60	51	47	54
Agree with reservations	34	31	30	32	39	59	38	31	40	32	24	34	37	27	19	39
Disagree with reservations	25	27	27	26	15	13	24	30	23	28	26	21	20	31	28	33
Strongly disagree	18	26	19	18	13	7	4	18	23	21	28	21	20	18	25	12
Totals	(1194)	(121)	(67)	(137)	(46)	(46)	(112)	(140)	(113)	(114)	(50)	(38)	(79)	(62)	(36)	(33)
5.48 Premature specialization																
Strongly agree	38	34	38	42	39	49	49	33	29	42	34	37	35	40	41	43
	76	67	73	82	85	89	89	63	72	77	66	81	81	73	77	86
Agree with reservations	38	33	35	40	46	40	40	30	43	35	32	44	46	33	36	43
Disagree with reservations	20	30	21	16	11	11	7	32	21	17	28	17	15	27	18	9
Strongly disagree	4	2	6	1	4	0	4	6	7	7	6	2	4	0	5	6
Totals	(1217)	(122)	(68)	(139)	(46)	(47)	(112)	(144)	(114)	(118)	(50)	(41)	(79)	(63)	(39)	(35)

concerned about the problems of premature specialization than are researchers. This fits well with their similar preference for wider degrees at universities, and their opposition to the "training of experts" concept of higher education.(16)

University expansion

The expansion of the British universities that is taking place at present is bound to have a powerful effect on academic men. And we have explored their attitudes toward expansion in some detail in Chapter III. Researchers may like expansion if it brings them larger departments and more facilities, but if it increases their teaching load they will probably be hostile. Teachers are most likely to disapprove if they think it will change the character of the pupils they teach for the worse in some way. Table 5.49 (on the following page) shows their views on whether the university system as a whole should be expanded. It turns out that in arts subjects the teachers are slightly more likely to favor expansion than the researchers, but in all other areas it is researchers who are more in favor of it. In arts, researchers have little to gain from an expansion of the system, since their work does not depend on large expenses of capital on equipment. They really stand only to lose by expansion, if they are distracted from their interests by having to teach more (and, they may fear, less stimulating) pupils. In the other subjects, however, expansion may well bring with it not only larger departments and more investment, but also a greater recognition of the contributions they can make in their fields.

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(16) But it is perhaps more important that substantial majorities of all categories of university teachers are critical of the present emphasis in the secondary schools, though almost evenly split regarding their present form of organization.

Table 5.49 Should we expand the university system? by Subject & Research Orientation (index) (per cent)
Table 5.50 Should your subject be expanded?

5.49 Expand System?	Arts			Social Science			Natural Science			Technology			Medicine		
	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching
Double	15	23	23	55	45	35	33	27	16	31	30	26	30	17	18
50%	42	37	44	23	48	40	38	44	48	29	43	44	40	39	33
25%	37	35	29	21	7	21	26	23	30	41	25	24	27	36	48
Remain as it is	7	6	5	0	0	4	3	6	6	0	3	6	3	8	0
Totals	(117)	(71)	(133)	(47)	(44)	(113)	(144)	(113)	(117)	(49)	(40)	(84)	(63)	(36)	(33)

5.50 Expand Subject?	Arts			Social Science			Natural Science			Technology			Medicine		
	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching	Research	Both	Teaching
No	9	10	9	4	2	5	7	8	5	4	10	11	11	8	3
Under 25%	45	35	37	11	9	14	32	26	36	24	20	19	41	50	41
25-75%	35	46	43	46	40	43	40	50	45	42	49	48	38	37	50
	46	54	54	85	89	82	61	66	59	72	71	70	48	42	56
Over 75%	11	8	11	39	49	39	21	16	14	30	22	22	10	5	6
Totals	(119)	(71)	(135)	(46)	(47)	(110)	(145)	(114)	(118)	(50)	(41)	(85)	(63)	(38)	(32)

Table 5.50 (page V-54) examines reactions of academic men to expansion within their own subject. The same broad pattern is still there: teachers are relatively well-disposed to expansion in the arts, and relatively hostile elsewhere, excpet in medicine where teachers favor expansion a little more than do researchers. But the differences between researchers and teachers, curiously enough, are much weaker when expansion is proposed closer to home.(17)

Status and power of the Professoriate

The two indices of attitudes to the power and to the status of the Professoriate will be discussed in our chapter on departmental structure (Chapter VI). (We show there that attitudes to research and teaching, when combined with other items into an index of cosmopolitanism and localism, have a definite bearing on views on both power and status.) It seems useful, however, to look at these two indices here, and see what relation research orientations by themselves, within subject categories, bear to attitudes towards the Professoriate. We should expect, as we suggest in Chapter VI, that researchers would be less tolerant of the status quo, most clearly as regards the power of Professors, which might inpede them in their work, but perhaps also as regards their status and the limited availability of Professorships.

Table 5.51 (on the following page) shows the distribution of attitudes to status. We find in fact that there is a relationship in arts, social science and natural science. In all these cases researchers are more likely to be critical of the present arrangements for allotting Professorships than are teachers, who are relatively content.

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(17) Differences between subjects in support for expansion were discussed in Chapter III.

(17a) These indices are described in Appendix A, pp. A7-A14.

Table 5.51 Attitudes to Status of the Professoriate,
Table 5.52 Attitudes to Power of the Professoriate,
by Subject & Research Orientation (index) (per cent)

5.51 Status of Professoriate	Arts			Social Science			Natural Science			Technology			Medicine		
	Re-search	Both	Teach-ing	Re search	Both	Teach-ing	Re search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
Levellers	30	20	18	34	33	25	32	24	21	27	22	25	34	32	34
Moderates	26	30	30	32	33	30	28	22	26	25	29	32	34	42	34
Elitists	44	49	53	34	35	45	41	54	52	47	49	43	31	26	31
Totals	(120)	(69)	(135)	(47)	(43)	(110)	(145)	(114)	(117)	(51)	(41)	(84)	(64)	(38)	(35)

5.52 Power of Professoriate	Arts			Social Science			Natural Science			Technology			Medicine		
	Re-search	Both	Teach-ing	Re search	Both	Teach-ing	Re search	Both	Teach-ing	Re-search	Both	Teach-ing	Re-search	Both	Teach-ing
Democrats	56	48	49	83	64	60	62	43	50	52	42	34	46	36	37
Neutrals	29	32	32	12	32	28	24	38	35	24	35	44	37	33	53
Non-democrats	15	20	19	5	5	12	14	19	14	24	22	22	17	30	10
Totals	(108)	(65)	(127)	(42)	(44)	(101)	(133)	(107)	(105)	(46)	(40)	(79)	(59)	(33)	(30)

Table 5.52 (on the same page) shows attitudes to the power of the Professorship. Here the relationship is present in every subject, and is stronger than before in social science. It seems clear that our hypothesis is correct: researchers are less likely to approve the large powers at present held by Professors. We discuss the possible reasons for this in Chapter VI.

Conclusion

In this chapter we have explored further the differences--in background, behavior, aspirations and attitudes--of men oriented principally to the teaching or research aspects of their academic roles. We have seen differences in their social origins, their secondary and higher education, their mobility and aspiration for mobility, and their perceptions and attitudes on a variety of aspects of institutional support and constraint. We looked also at their valued forms of communication, and finally at their differences on other aspects of university and educational policy and practice. All this is difficult to summarize briefly. Instead, it may be more useful to step back from the data and attempt a more general overview of what we have found, searching behind the welter of detail for some more basic and more general ways of describing British academic men, ways that link their characteristics with broad characteristics and tendencies in British higher education. In the next chapter, VI, we examine in detail the attitudes toward the Professoriate referred to in the preceding pages. In Chapter VII we broaden our perspectives to explore the politics of academic men, especially as these are relevant to their academic roles. A first attempt at a more general characterization of British academic men is presented in the concluding chapter, VIII.

CHAPTER VI

THE ACADEMIC MAN AND HIS DEPARTMENT: ATTITUDES TOWARD PROFESSORIAL STATUS AND POWER

The structure of teaching appointments in most(1) British universities, like that on the continent, has traditionally been pyramidal. All departments have a number of Lecturers, usually one or two Assistant Lecturers (short-term probationary posts), and the possibility of three senior posts, those of Professor, Reader, and Senior Lecturer, of each of which there is generally only one incumbent. In the expansion of recent years departments have tended to increase in size; while new departments have not been created at the same rate. Thus the natural bottleneck caused by the pyramid has tended to narrow. This is brought out by figures given by Robbins: in 1927/8 the percentage of Professors in the teaching population was 22%, or almost 1 in 4, while by 1961/2 it had dropped to 12%, i.e., 1 in 8.(2) Since wastage from the profession is not very large it would not be surprising if some tension were created in the system.

Moreover, the nature of the senior posts, and particularly of the Professorship, may create problems. For the role of Professor involves several functions. On one hand it is very clearly understood that Chairs are filled on the basis of academic distinction, and the Professor must be the leading member, academically, of his department; and in this capacity he is expected to carry on productive research of his own. But besides his private concerns he is generally also "head of the department." In 1961/2 80% of

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(1) These remarks apply chiefly to redbrick universities: the academic organization of Oxford and Cambridge is in important respects quite different.

(2) Robbins, Appendix 3, Part I, Table 7.

Professors were department heads, while 74% of heads of departments were Professors, 7% Readers, 12% Senior Lecturers, other 6%(3); presumably many of the 26% of departments without a Professor for head in fact had no Professor. The Professor as department head has a very large load of administrative duties; he is essentially responsible for the whole work and life of his department: for its budget, its syllabus, its staff and students. Moreover he will often substantially direct all the research that is carried on by junior members of the department. The advantages of this system are evident--a central and unified control that will give unity and consistency to the department, and a single voice that can represent it to the outer university world; as are the disadvantages--for the Professor heavy administrative responsibilities, and many time-consuming concerns that may distract him from his real interests: and for junior members a possible lack of independence, allied with limited opportunities for promotion.

It may be useful to contrast this with the American system. Here the highest academic rank in a department, that of full Professor, is held by up to a third of the staff members, all of whom have considerable independence in teaching and research, and parity of pay and status. Although a department has a chairman, whose administrative functions correspond to those of a Professorial head in England, he is more often seen rather as first among equals than as senior vis-à-vis juniors. Thus while real power may not be much less concentrated (though it usually is, at least among the larger number of senior men), high status at least is more broadly distributed, and this is bound to have some effect on the wielding of power.

The organization of an academic department has large effects on the scholarly and academic life of its members. The concentration of administrative responsibility in the hands of the departments head threatens his freedom to pursue the research and scholarly interests which earned him his Chair: we saw some of the effects of this administrative overload on the Professor in Chapter IV. Moreover, the concentration of authority over the internal allocation of resources in the department, and especially of its research activities, can give a department a personal research "direction" and focus; it can also operate, as we have suggested, as a constraint on the autonomy of junior members.

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(3) Robbins, Appendix 3, Part I, Table 13.

We are not able with our data to study directly the ways in which the patterns of departmental organization in British universities affect the character or quality of teaching and research within them. We are, however, able to explore the attitudes and sentiments of academic men toward central characteristics of the university departments: most notably the power and the status of the Professor. We will be interested first in seeing how certain attitudes on these issues are distributed among the whole academic profession (at least as reflected in our sample). We will then look more closely at how these views differ in different parts and levels of the university system. Finally, we will explore some of the sources of these attitudes. And here we will be at least raising questions about forces in the university and in the larger society that work to support or to modify the existing structure of academic power and status, and the extent to which the academic profession itself is, on balance, a force for conservation or change in British higher education.

Attitudes to departmental structure in the teaching population

Our sample were offered four statements bearing on the Professoriate, with which they were asked to agree or disagree. Tables 6.1-4 (on the following pages) present the distribution of their answers.

Table 6.1 Q.49(ix) "Most British university departments would be better run by the method of circulating chairmanship than by a permanent Head of Department."

Per cent who-----

Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree	Total
24	33	25	17	1365

It is clear that more than half our sample favor a radical departure from the present method of administering departments, with or without reservations: a fairly startling finding in itself. The following question, which offers no alternative prescription, but simply gives an opportunity for criticism, is even more striking.

Table 6.2 Q.49(viii) "A serious disadvantage of redbrick universities is that all too often they are run by a professorial oligarchy"

Per cent who-----

Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree	Total
41	36	18	5	1266(4)

Over three quarters of our population express dissatisfaction with the power structure of redbrick universities.(5) These two questions are primarily directed to the distribution of administrative power in the system. The two other questions deal with the somewhat different problem of the number of Professorships which should be available: they are related most directly therefore to the distribution of high status, and do not refer to the power structure except by implication.(6)

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(4) The unusually large number of non-respondents may be attributed to some respondents being unwilling to answer because they were unfamiliar with any redbrick university. For those at present at redbrick universities, the proportion of non-respondents was not unusually large.

(5) As noted above, we have taken redbrick as the paradigm for our description of British university structure; and if we include the four Welsh colleges (which are structurally very similar) under the description "redbrick," then some 50% of university teachers are employed in this type of university: and probably only Oxford and Cambridge are very notably different.

Respondents were asked to comment on the statement that (Q.49(v)) "A university department with more than eight members of staff should have more than one member of Professorial rank"(7), in an effort to discover if the steady decline in the relative number of Professors had caused discontent, or rather if any further decline would be accepted by teachers as a whole. The answer to the latter question seems to be a fairly clear No: see Table 6.3.

Table 6.3 Q.49 (v) "A university department with more than eight members of staff should have more than one member of Professorial rank"

Per cent who-----

Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree	Total
40	37	17	5	1370

Over three quarters of our sample agreed, with or without reservations, that a second Professor should be appointed where a department was larger than the 1961/2 average size of eight members.

Finally, we suggested what would amount to a much more radical change: that a Professorship should be the normal expectation of all university teachers--a suggestion which would involve moving at least as far as any American university has towards widening opportunities for Professorship. Table 6.4 gives the results.

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(6) Our distinction corresponds to the two aspects or dimensions of democracy discussed by Max Weber: the minimization of power and the levelling of statuses. See H. H. Gerth and C. Wright Mills, eds., From Max Weber, Oxford University Press, New York, 1946, p. 226.

(7) The figure of one in eight was the current average in 1961/2 (see p. V-1).

Table 6.4 Q.49(iv) "A professorship ought to be part of the normal expectation of an academic career and not a special attainment of a minority of university teachers."

Per cent who-----

Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree	Total
13	27	35	24	(1385)

Even here, 40% of our sample agree with or without reservations, while only one quarter disagree without reservations.

On first examination, therefore, there is evidence of considerable discontent with the present system, and of support even for very sweeping changes among a surprisingly high number of teachers. It seems useful now to explore briefly how these views are distributed among various sectors of our population.

Attitudes to departmental structure in different university groups

Since the internal structure of British universities does vary quite substantially, it is at least possible that members of different university groups might have different views, whether as a result of varying experience, or of a process of self-selection whereby they would end up in the kind of system they prefer. Tables 6.5-8 (on the following page) explore this possibility. First, we see that, Oxbridge apart, differences among men in different university groups on most of these questions are not very large. To deal with those questions related to administrative power first, it is not hard to explain the higher percentages of agreement in Oxbridge on the first two

Tables 6.5-8 Percentage who Agree (with or without reservations) to each Statement, by University Group (per cent)

	Ox-bridge	Major Red-brick	Minor Red-brick	Wales	Scot-land	London
6.5 Q.49(ix) Departments should be run by circulating chairman	64	56	64	48	53	53
6.6 Q.49(viii) Redbricks are dominated by professorial oligarchy	82	76	79	76	75	77
6.7 Q.49(v) Should be second Professor for more than eight members	60	80	83	80	73	83
6.8 Q.49(iv) Professorship should be normal expectation	25	42	39	43	38	48
Totals (vary slightly)	(158)	(468)	(145)	(117)	(242)	(237)

questions. With their traditions of college autonomy, Oxford and Cambridge have their own peculiar difficulties in departmental administration which are probably responsible for the high percentage who favor a circulating chairman; and the same tradition combined with a certain self-satisfaction would account for the unusually large number of critics of redbrick universities.

When we turn to the question of status we find that teachers from Oxbridge are now at the other extreme: they favor change noticeably less than their colleagues from other universities; and nearest to them are those from Scotland, i.e., members of the other "ancient" universities. This undoubtedly reflects the democratic elitism of the ancient universities, and their long tradition of colleagual rather than hierarchical authority. The ancient universities have influenced the character and development of the provincial universities in many and powerful ways; in so many ways they have provided the model which newer foundations have sought to emulate. It is worth asking, if not here answering, the question of why the modern universities did not take over the organizational forms with so much else from the ancient establishments.

Attitudes to departmental structure in different ranks

Since the questions of power and status that we are discussing relate to the distribution of the various ranks, and the roles played by their occupants, it might be expected that attitudes would vary according to the rank held by the respondent. Tables 6.9-12 show these distributions.

Tables 6.9-12 Percentage who Agree (with or without reservations) to Each Statement, by University Rank (per cent)

	Professors	Readers	Senior Lecturers	Lecturers	Others
6.9 Q.49(ix) Departments should be run by circulating chairman	51	62	58	58	58
6.10 Q.49(viii) Redbricks are dominated by professorial oligarchy	46	84	83	81	80
6.11 Q.49 (v) Should be second Professor for more than eight members	75	80	83	87	75
6.12 Q.49(iv) Professorship should be normal expectation	29	43	51	40	41
Totals (vary slightly)	(190)	(128)	(218)	(734)	(116)

Again the variation is not large, with the notable, if unsurprising exception that Professors disagree most often with all four statements. The difference is particularly large in the case of the most critical statement, that the redbrick universities are run by a professorial oligarchy; on that question not much more than half as many Professors as men in other ranks agree. But even on that question, nearly half of the Professors do not reject the highly pejorative overtones of "professorial oligarchy." The impression from these four distributions is that the Professors as a body are by no means united in defense of their present prerogatives: it is only with respect to what is perhaps the most radical suggestion for modifying the academic structure--by making a Professorship a "normal" expectation of the academic careers--that a large majority of Professors draw back.

Attitudes to departmental structure among teachers of different subjects

The actual figures broken down by subject taught are given in Appendix A, Tables 6.27-30, since there are no very striking differences among the subject areas. It is noticeable however that social scientists are consistently more in favor of change than any other group: a point which may become more intelligible when we explore some of the other sources of attitudes toward departmental structure.

Power and status: the relation between attitudes to departmental structure

We have already suggested that we are dealing here with two distinguishable (though related) problems: first, how departments are to be governed, or who is to have the real administrative power in formal terms; and second, how is the prestige of full Professorship to be allocated and how widely is it to be spread? When we compared the relations between replies to our four questions we found that this belief was borne out by the facts: for there is a much closer relation between questions 49(ix) and 49(viii) (those bearing on power) and between questions 49(v) and 49(iv) (those bearing on professorial status) than for any other combinations. Table 6.13 (following page) presents the relation of questions 49(ix) and 49(viii).

Table 6.13 Q.49(viii) "Redbricks are dominated by professorial oligarchy" by Q.49(ix) "Departments should be run by circulating chairman" (per cent)

	Q. 49(ix) Circulating Chairman			
Q. 49(viii) Oligarchy	Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree
Strongly agree	75	45	21	15
Agree with reservations	19	42	50	31
Disagree with reservations	6	11	27	37
Strongly disagree	1	2	3	17
Totals	(305)	(412)	(308)	(228)

Of those who strongly agree that circulating chairmanship should replace the present system, 75% also strongly agree that redbrick universities are dominated by a professorial oligarchy, compared with only 15% of those who strongly oppose circulating chairmanship. (Or if we add the first two lines of the table, looking at all those who agree strongly or with reservations to Q.49 (viii), the figures are 94% versus 46%.) So that while there are obviously differences between attitudes tapped by these two questions there is a large common element. It seemed useful then to construct an index which might be used as a summary of attitudes to professorial power. Those who agree with both these statements we shall characterize as "democrats"; those who agree with only one of the two as "part-democrats"; and those who disagree with both as "non-democrats."(8) This characterization gives us 640 respondents who were "democrats" (or 51% of those who could be classified), 401 "part-democrats" (32%) and 212 "non-democrats" (17%). 155 respondents could not be so classified since they had not answered one or other of these questions.(9)

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(8) These terms should of course be taken as applying only within the particular context of departmental administration.

(9) For details, see Appendix A.

When we turn to attitudes toward increasing the number of Professorships available, we find an equally strong relationship (Table 6.14).

Table 6.14 Q.49(v) "There should be more than one Professor for more than eight staff members" by Q.49(iv) "Professorship should be normal" (per cent)

	49(iv) Professorship Should be Normal			
Q.49(v) Second Professor	Strongly Agree	Agree with Reservations	Disagree with Reservations	Strongly Disagree
Strongly agree	85	53	26	21
Agree with reservations	13	41	50	29
Disagree with reservations	2	5	21	34
Strongly disagree	0	1	3	16
Totals	(181)	(374)	(475)	(330)

Of those who strongly agree that a Professorship should be the normal expectation of a university teacher, 85% also strongly agree that there should be a second Professor where a department is larger than eight. This compares with 21% of those who strongly disagree that a Professorship should be normal. Or, adding the first two lines, as above, there is a variation from 98% to 50%. Here again an index was constructed, similar in design to that of the index of attitudes to professorial power. Those who agreed, with or without reservations, with both statements, that there should be a second Professor for departments larger than eight, and that Professorship should be a normal expectation, we called "levellers," those who agreed with only one(10) we called "moderates" and those who agreed with neither "elitists." This gave us 235 "elitists" (18% of those classified), 500 "moderates" (41%) and 495 "levellers" (40%).(11) As before, it should be noted that these characterizations are defined by their context; we do not mean to imply that those called "elitists" are so in all respects (though we shall show later that their views on professorial status are not independent of other views). The reader should keep in mind that these two indices are somewhat artificial combinations, developed for the purpose of our analysis to show the relation of attitudes to power and status to other opinions and experiences of academic men. But by developing them we have to some extent muffled the effect of the original questions; we do not wish to suggest that 40% of our sample are "levellers," only that this proportion may be called "levellers" vis-à-vis the other members of the sample: absolute figures are better determined by returning to the original questions.

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(10) Of these, almost all agreed that large departments should have an extra Professor, but not that Professorship should be normal, as can be seen in Table 6.14.

(11) For details see Appendix A.

We have already suggested that these two indices relate to somewhat different issues, those, respectively, of the power and status of British university Professors. The interrelations between their respective components are substantially higher than any other possible combinations. And our later analysis will make this assertion even clearer. But the two indices are themselves moderately related. Table 6.15 shows the relation between attitudes to professorial power and status, as measured by our two indices.

Table 6.15 Attitudes to Professorial Status by Attitudes toward Professorial Power (per cent)

	Attitudes to Professorial Power		
Attitudes to Professorial Status	Democrats	Part-democrats	Non-democrats
Levellers	36	23	9
Moderates	30	29	28
Elitists	33	49	63
Totals	(627)	(395)	(208)

There is a difference of 27 percentage points between Democrats and Non-democrats in the proportion of Levellers, and 30% in the proportion of Elitists. Attitudes to the status of the Professor clearly are related to attitudes to his administrative power; they are, however, by no means identical.

Sources and correlates of attitudes toward professorial power and status

As promised earlier, we now move on from a bare description of these attitudes and where they are to be found in the universities to try and explore some of their sources and correlates. We should expect that while experience plays its part in determining these attitudes (for example a successful Lecturer who sees a good chance of a Professorship for himself within a few years, and who has never suffered from undue interference with his work will probably not feel very strongly about the need for change), most teachers will approach the problems of power and status, and all other aspects of their profession, with certain preconceptions about the character of a university education, about the job they are doing, and, at a higher level, with views about the desirability of concentration or diffusion of power and status. We emphasized that the labels "democrat," "elitist," etc. were to be taken as applying only within their particular context; but it would be surprising if they were entirely unconnected with attitudes toward the whole world in which our population lives. Whether for logical or emotional reasons, it is not easy to be a fervent democrat in one context, and an anti-democrat in another. We shall therefore try to relate these views on the structure of university departments to views on other topics in the following section. Before we do so, however, a brief note is necessary on the effect of experience within the immediate context.

Attitudes toward, and experience with, departmental administration

Our sample was asked "What are the major handicaps that you experience in carrying on research?" and given a list of eight possibilities (with no restriction on the number they might check) including such items as insufficient time because of teaching commitments, insufficient financial resources, insufficient library facilities, etc., and "unresponsiveness of your departmental administration to your research needs." Thirteen percent of our respondents checked this latter possibility. One would expect these people to be exceptionally dissatisfied with the present method of administration, and so it proved. Table 6.16 shows our finding.

Table 6.16 Attitudes to Professorial Power by Experience of "Administrative Unresponsiveness" as a Major Handicap in Carrying on Research (per cent)

Attitude to Professorial Power	Mentions Administrative Unresponsiveness	Does not Mention Administrative Unresponsiveness
Democrats	72	48
Part-democrats	21	34
Non-democrats	6	19
Totals	(170)	(1083)

Thus almost three quarters of those who felt their research was suffering from the effects of the present form of departmental administration favored change in the way departments are governed, as against half of those who did not complain of this handicap.

We cannot be sure that the experience of departmental unresponsiveness to research requirements leads to critical attitudes toward the power of the Professoriate. There may be some underlying element of discontent with a man's department that leads to both criticism of its head and a feeling that it is unhelpful to one's research. Such feelings of generalized discontent (or resentment) might also be expected to be expressed in attitudes critical of the status of the Professor. Table 6.17 examines whether there is a relation between the sense of administrative unresponsiveness to research needs and attitudes toward professorial status.

Table 6.17 Attitudes to Professorial Status by Experience of "Administrative Unresponsiveness" as a Major Handicap to Carrying on Research (per cent)

Attitudes to Professorial Status	Mentions Administrative Unresponsiveness	Does not Mention Administrative Unresponsiveness
Levellers	49	37
Moderates	39	41
Elitists	11	22
Totals	(178)	(1182)

In Table 6.17 we see a relatively weak relation between the experience of departmental administration and the index of attitudes toward professorial status. We still cannot be sure of the causal direction. But it appears that attitudes toward professorial power are related to the experience of its exercise in the department in a way that attitudes to professorial status are not.

Attitudes to departmental structure and political views

The importance of political views has already been discussed and demonstrated in Chapter III, and will be much more fully explored in Chapter VII. As a simple indicator of a man's broad social orientations and dispositions, political preference is unrivalled. Moreover, political views will reflect and affect a man's attitudes not only toward society in general, and toward its major institutions (including the educational system), but also the way he assesses the operation of particular organizations and the ways they distribute power and status. We expect therefore to find a relation between political preference and our two indices. Tables 6.18 and 6.19 show our findings.

Table 6.18 Attitudes to Professorial Power by Political Position (per cent)

Attitudes to Professorial Power	Political Position: Far Left	Moderate Left	Center	Right
Democrats	74	58	46	35
Part-democrats	21	28	36	39
Non-democrats	5	14	18	25
Totals	(58)	(597)	(343)	(220)

It is clear that general political dispositons are closely linked to democratic preferences in the field of university administration. Proportionately twice as many of the Far Left as of the Right are democrats in their university department;(12) and while a quarter of the Right are "non-democrats," only 5% of the Far Left are. In their attitudes toward the distribution of power in the department and university, at least, the political preference of academic men are of great importance. We must now look at their attitudes to professorial status (Table 6.19).

Table 6.19 Attitudes to Professorial Status by Political Position (per cent)

Attitudes to Professorial Status	Political Position: Far Left	Moderate Left	Center	Right
Levellers	43	41	40	34
Moderates	42	42	39	38
Elitists	15	17	21	28
Totals	(60)	(636)	(368)	(256)

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(12) "Democrats" of course, in the limited and relative sense determined by the nature of the index.

Here the relation is considerably less strong: it appears most clearly in the bottom line of the table (the elitists), where there is a difference of 13 percentage points between the two political extremes. It appears that political views affect a man's attitude to the distribution of power much more strongly than his attitude to the distribution of high status: and this, considering that politics (even in Britain) is essentially concerned more with problems of power than of status, is perhaps what we should expect.

Nevertheless, the weakness of the relationship in Table 6.19 is striking and significant. If we set the small minority on the Far Left aside, the difference between the Moderate Left (who supply the great bulk of Labour supporters among academic men) and the men of the Right is very small: they do not see the distribution of academic status in fundamentally different ways. And even on the Far Left well over half are "elitists" or "moderates"--that is, respond to either or both of our questions with elitist responses regarding the size or accessibility of the Professoriate; their presumed egalitarianism in the larger society is sharply insulated from their feelings about rank in the university. This is a finding of some significance for the larger question of the role of the academic profession in the expansion and democratization of British higher education. We see here, much as we did in our chapter on university expansion, evidence of the broad conservatism of the academic profession taken as a whole. This is a conservatism, however, that can accommodate a measure of reform and change: some degree of expansion, though not so much that will threaten the existing character and standard of British universities; some growth in the number of Professors, to handle increased administrative burdens, but not so many as to change the elite status of the rank.

But the chief engines of change in British higher education (and this may well be true in every society) do not lie within the universities themselves, but in their environing society. Expansion of British higher education there is sure to be, and much more than academic men at any given moment would cheerfully accept, because of quite inexorable forces in the economy and in the rising educational aspirations of the general population. There are no such powerful external forces lying behind a reform of the organizational structures of British universities, or of their constituent departments, schools or colleges. Changes will come, however, but rather more slowly and in response to other forced changes in size and function. Our present findings suggest that there is considerable support among academic men for moderate changes in the power and numbers of the Professoriate; it does not tell us anything about the likelihood of such changes actually occurring, the internal political processes through which they would be accomplished (or resisted), or the relevance of the state of "public opinion" among academic men to these political processes.

One further point: we suspect that it matters whether "public opinion" among academic men on some university issues (such as expansion, or departmental organization, or the accessibility of the Professorship) is linked to their more general political attitudes and dispositons. Our guess is that where there are strong links between attitudes on academic matters and national political differences there is greater likelihood that those academics supporting specific changes can make their wishes felt in the universities, than if those attitudes toward change were distributed more randomly through the body of academic men. But this is, for the moment, pure conjecture: our present study allows us to do no more than voice these questions regarding the ways the attitudes and sentiments of academic men on academic issues enter the political process and affect their outcomes.

Let us return from these speculations to our exploration of the correlates and sources of these attitudes to the Professoriate.

"Elitism" as opposition to university expansion and the expansion of the Professoriate

In Britain, whose system of higher education cannot possibly at present be called "mass education," the possession of a university degree is at least as important for the high status it confers as for what it indicates in the way of intellectual attainment. And it was clear from our interviews, and from analysis of the survey findings(13) that resistance to expanding the number of university places often stemmed from a fear for 'the meaning of a university degree', and a reluctance to 'dilute' its standing or distinction. It seemed possible that the same or similar sentiments would be marshalled in opposition to an increase in the number of Professorships available. And indeed Table 6.20 suggests that there is such a connection.

Table 6.20 Attitudes to the Status of the Professorship by Attitudes toward Expanding the University System (per cent)

	Recommended Expansion			
Attitudes to Professorial Status	Double	50%	25%	Remain as it is
Levellers	47	39	31	32
Moderates	39	43	39	39
Elitists	14	18	30	30
Totals	(363)	(530)	(373)	(57)

Of those who recommend doubling the size of the university system, only 14% are "elitists" with regard to the numbers and status of the Professoriate, as compared with 30%, or twice as many, of those advocating little or no growth of the system as a whole. But again, one is struck as much by the moderate size of the relationship as by its existence, and especially by the very large numbers who are able to support substantial growth in student numbers without wishing to modify the distribution of status among academic ranks. This at least suggests (as did other data in Chapter III) that a substantial part of the support for university expansion among academic men in no way reflects a wish to democratize the system, but merely to strengthen and expand a continuing elitist institution. And that wish, of course, is wholly compatible with not modifying its internal arrangements, except perhaps marginally in the interests of administrative efficiency.(13a)

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(13) See Chapter III-23 and especially Table 3.15.

The combined effect of political position and attitudes to expanding the university system on attitudes to departmental structure

We have seen how general political dispositions and attitudes toward university expansion are related to attitudes toward the status of Professors (and quite differently related to attitudes toward professorial power). We know, however, from Chapter III, that political preference is related to support for expanding the universities. It is possible, therefore, that Table 6.20 (previous page) does not represent a genuine causal link. The fact that attitudes toward expanding the universities seem to be related to attitudes toward the Professorship may simply be a product of the fact that political preference is related to both of these. To explore this possibility we have to present a table which contains all three variables. This is done in Table 6.21 (on page V-21) for attitudes to professorial power, and Table

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(13a)In (Appendix) Table 6.33 we show the relation of attitudes toward expanding the university system to attitudes to professorial power. In this case there was no clear relationship at all.

Table 6.21 Attitudes to Professorial Power by Attitudes to Expansion Within Categories of Political Position (per cent)

Attitudes to Professorial Power	Left			Center			Right		
	Double	50%	Insignificant	Double	50%	Insignificant	Double	50%	Insignificant
Democrats	65	54	56	57	42	45	38	33	38
Part-democrats	22	34	27	27	40	36	35	40	38
Non-democrats	13	12	17	16	18	19	27	27	24
Totals	(238)	(259)	(139)	(70)	(149)	(115)	(26)	(77)	(112)

Table 6.22 Attitudes to Professorial Status by Attitudes to Expansion Within Categories of Political Position (per cent)

Attitudes to Professorial Status	Left			Center			Right		
	Double	50%	Insignificant	Double	50%	Insignificant	Double	50%	Insignificant
Levellers	49	39	30	46	44	31	37	33	33
Moderates	36	44	46	39	39	37	47	42	33
Elitists	13	17	23	14	17	31	17	25	33
Totals	(248)	(277)	(151)	(76)	(157)	(128)	(30)	(84)	(135)

6.22 (on page VI-21) for attitudes to professorial status.(14) When we examine Table 6.21 it is clear that within each political group, attitudes to expansion are not very clearly related to men's views of the power of Professors. If, however, one looks at that table comparing the effect of different political views within categories of attitudes toward expansion, it is clear that even among those who have similar views on expanding the universities, their political position makes a substantial difference to their attitudes toward the departmental power of the Professor.

For Table 6.22, however, precisely the reverse applies. When we control for politics, attitudes to expansion are still significantly related to attitudes toward professorial status; whereas political position is not consistently related to attitudes to the status of the Professorship when attitudes to expansion are controlled.

These findings support our contention that we are here dealing with two separate, though related problems; those that we have characterized by the Weberian shorthand of power and status. Moreover, we have succeeded in isolating a form of elitism in relation both to the university system and to the appointments structure of university departments which seems to operate independently of political views; and we have shown that the question of professorial power and control of a department is seen largely in political terms, to the extent at least that political views affect teachers' attitudes on the subject of departmental control even independent of their attitudes toward expansion of the university system. The implications of these findings will be developed more fully further on.

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(14) In these tables "Far Left" and "Moderate Left" are combined to provide sufficient cases for analysis; and "expansion of 25%" and "remain as it is" are combined in a category of "insignificant expansion," as in Chapter III.

Local-cosmopolitan orientations and their relation to attitudes toward academic power and status

We have been exploring the ways in which attitudes of university teachers toward academic power and status are related to broader values reflected in their political positions and feelings about university expansion. But we suspect that these feelings about subordination-superordination and the elite pinnacles of a status hierarchy are also linked to whether men orient themselves primarily to their academic disciplines, or to their academic communities; to the "Great Society" of science and scholarship, or to their university as a small town and their department as village or neighborhood. We will find it useful to refer to men having these kinds of orientations--to the broader disciplines or the local academic community--as "cosmopolitans" and "locals." Our expectation is that cosmopolitans are more likely to be both "democratic" with respect to the departmental power of the Professor and also more egalitarian with regard to access to the senior academic rank. On one hand, the man oriented to the discipline, and to the movement of ideas and growth of knowledge in his subject, wherever it may be going on, is likely to see a strong head of department as at least a potential constraint on his freedom to develop his own research and scholarly interests. Power concentrated in a permanent head of department, and in a small band of senior Professors--whatever their personal qualities--is not likely to be exercised primarily in the interests of the research work of junior men. Heads of departments have other, internal concerns; their position and administrative responsibilities tend inevitably to lead them to place emphasis on the local academic community--the university or department--within which they hold their posts and for whose welfare they bear a major responsibility. Ironically, the Professor typically gains his position by his contribution to the larger world of scholarships and science; his appointment as head of department, or to a senior university-wide academic committee, forces him to assume local orientations.

Of course, not all Professorial heads of departments surrender their cirtizenship in the Great Society to become local magnates and village headmen. Many retain their own broader scholarly and research interests, and also administer their departments and universities in ways that are aimed at least in part toward facilitating the work of the cosmopolitans and researchers among their subordinates. But their roles inevitably involve a measure of conflict between their commitment on one hand to their subjects and to research generally, and on the other to their institutionalized responsibilities for their departments, and especially for the care and instruction of the students who, in British universities, are the chief concern of the community.

However different Professors resolve these conflicts in their own personal styles and administrative actions (and this is a question we will want to explore more fully later), cosmopolitan and research oriented men in their own departments are likely to identify their own interests not so much with the benevolence of academic power as with its weakness and dispersion. Freedom for research flourishes in the cracks between the flag-stones of institutional authority: and the more flag-stones, the more cracks; the more Professors, and the more diluted their power, the greater the autonomy of their subordinates. Where nominal departmental authority is held by an (inevitably) weak rotating chairman, and actually exercised by the colleagual body of teachers of all ranks, the pull of local responsibilities (especially to the teaching function) is weakened, and freedom to act on orientations toward the Great Society of scholarship that lies, for the most part, outside the institution is correspondingly strengthened.

These are among the reasons we expect to find academic men with cosmopolitan orientations more likely to support more "democratic" forms of university and departmental government. For somewhat different reasons we also expect that they will, on average, be more egalitarian in their views about the scarcity and status of the professorial role. For one thing, professorial power and status are related, both in reality and in the attitudes of academic men toward the Professoriate. On balance, the more Professors, the less powerful any one of them; the more normal the expectation of becoming a Professor, the more substantive equality in the department and university between men who are Professors and men who are merely on their way to becoming a Professsor. The "normality of expectation" of attaining the senior academic rank, as we can see very clearly in American universities, very much blurs the distinction among ranks. It makes the Professorship a function much less of achievement than of age and seniority, attributes which in academic life are not legitimate bases for very wide disparities in power and status.

But in addition, men with cosmopolitan and research orientations are very much concerned with academic status and prestige: but status rooted not in academic rank in the university, but in scholarly and scientific reputation in the Great Society of their subjects (or the even greater society of scholarship and science more generally). For such men, to be made Professor is not the source of their status, but merely an acknowledgement of it by their university. Rank is the chief source of academic status within the university, where it carries power. It counts for much less outside the university, where men are judged on their scholarly and scientific accomplishment. And if accomplishment and reputation are the real bases of a man's academic status, and not his rank, then it cannot be harmed by increasing the numbers of Professors and thus diluting the honorific status attaching to the rank itself.

Thus men whose academic prestige is rooted in accomplishment rather than rank, and whose reference groups lie outside the university--that is, research oriented cosmopolitans--are less likely to be concerned with maintaining the scarcity value of rank. Moreover, when rank is more closely linked to seniority than to accomplishment, as is true especially in the natural sciences and mathematics, then the disparities between rank and scientific distinction are merely an embarrassment or inconvenience--the more easily removed the larger the number of Professorships available.

To explore these ideas empirically we developed an index of cosmopolitan-localism based on teachers' responses to questions about their interests in research versus teaching, their having held office in professional or learned societies, their publications, their use of professional journals, their attachment to their present university and their anticipation about applying for posts elsewhere.(15) This index gives us at one end men who are primarily oriented to research and their disciplines but not strongly attached to their present universities; at the other, men who are attached to their universities and much less so to their professional or disciplinary communities.

Let us look first at the relation between these orientations and attitudes of academic men toward professorial power (Table 6.23 on the following page).

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(15) The construction of this index and it's rationale are discussed in Appendix A.

Table 6.23 Attitudes to Professorial Power by Cosmopolitanism-Localism
(per cent)

Attitudes to	Cosmopolitans	....	....	....	....	....	Locals
Professorial Power	1	2	3	4	5	6	7
Democrats	70	66	54	50	49	42	41
Part-democrats	26	28	30	30	31	36	41
Non-democrats	4	6	16	20	21	23	18
Totals	(54)	(93)	(244)	(305)	(229)	(137)	(73)

We see in Table 6.23 clear support for our speculative discussion above: men with cosmopolitan orientations are distinctly more likely to support statements that criticize, or proposals to weaken, the power of the Professor in the department. And the relationship is continuous--there is a steady increase in these "democratic" sentiments, the stronger the orientations to research and the discipline, and the weaker the attachments to present university.

We find a similar relationship, as we anticipated, between cosmospolitanism and egalitarian views regarding the number and status of Professors, and conversely, between local orientations and elitist views about the rank (Table 6.24).

Table 6.24 Attitudes to Professorial Status, by Cosmopolitanism-Localsim
(per cent)

Attitudes to	Cosmopolitans	....	....	....	....	....	Locals
Professorial Status	1	2	3	4	5	6	7
Levellers	55	55	43	41	34	27	24
Moderates	39	34	41	41	40	45	40
Elitists	5	11	16	18	27	26	35
Totals	(56)	(100)	(257)	(331)	(252)	(155)	(82)

Where over half of the "locals" are "levellers" on our measures of these attitudes, the comparable proportion among men at the cosmopolitan end is only a quarter to a third.

Attitudes toward professorial power, cosmopolitanism/localism and political position

We have seen earlier that attitudes toward Professorial pwer are strikingly related to the political position academic men assign themselves on a national political spectrum; while attitudes toward the status of the Professoriate are strongly related to expansionist or elitist views of the university system. We want now to see how these general orientations toward politics and higher education act in conjunction with local or cosmopolitan orientations as they jointly bear on how men feel about the power and status of high academic rank.(16)

Table 6.25(17) (on the next page) shows the first of these joint relationships, linking political position and cosmopolitanism as they bear on attitudes toward professorial power.

Here we see very clearly the independent and cumulative influence of political position and cosmopolitanism on attitudes toward professorial power. Within categories of political position, cosmopolitan orientations continue to show a strong relation to "democratic" attitudes toward the Professorship.

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(16) In part this is explored out of concern with the possibility that the relationships in Tables 6.23 and 6.24 lead to spurious interpretations due to the relationship of cosmopolitanism with political or expansionist positions. The tables below dispel this anxiety, but the relatively weak relationships between the cosmopolitanism-localism index, and political position and support for university expansion are shown separately in Appendix A, Tables 6.37-39.

(17) In Tables 6.25-28 we have combined the two extreme positions at each end of the cosmopolitanism-localism index to give a sufficient number of cases.

Table 6.25 Attitudes to Professorial Power by Cosmopolitanism-Localism, and Political Position (per cent)

	Left					Center					Right				
	Cosmopolitan........Local					Cosmopolitan.......Local					Cosmopolitan........Local				
Attitudes to Professorial Power	1-2	3	4	5	6-7	1-2	3	4	5	6-7	1-2	3	4	5	6-7
Democrats	75	62	57	53	50	63	42	46	57	39	50	50	37	29	27
Part-democrats	20	30	28	28	30	34	33	30	30	44	36	33	37	38	45
Non-democrats	5	8	15	19	19	3	24	24	13	18	14	17	27	33	29
Totals	(84)	(121)	(169)	(117)	(99)	(38)	(78)	(79)	(61)	(57)	(22)	(36)	(49)	(45)	(49)

Table 6.26 Attitudes to Status of the Professorship by Cosmopolitanism-Localism, and Attitudes to Expansion (per cent)

	Double					50%					Insignificant Expansion				
	Cosmopolitan.........Local					Cosmopolitan.......Local					Cosmopolitan.......Local				
Attitudes to Professorial Status	1-2	3	4	5	6-7	1-2	3	4	5	6-7	1-2	3	4	5	6-7
Levellers	58	58	46	42	32	52	40	42	31	35	52	32	34	30	20
Moderates	35	34	41	38	42	37	47	43	46	41	39	39	37	33	44
Elitists	8	8	13	20	26	11	13	14	23	23	9	28	29	37	35
Totals	(52)	(79)	(85)	(66)	(38)	(54)	(98)	(139)	(98)	(99)	(46)	(74)	(97)	(84)	(93)

Similarly, within each category of cosmopolitan-localism men of the Left are distinctly more "democratic" than men of the Right. Together, their joint effect is very large: three times as many Left-wing cosmopolitans as Right-wing locals are "democrats." These two factors taken together have a substantial degree of predictive power, and show that views on the structure of power in universities, far from being held in a vacuum are strongly influenced by the attitudes and orientations that academic men hold toward more general issues than the specific matters about which respondents were being asked.(18)

Attitudes to professorial status, cosmopolitanism-localism, and support for expanding the university system

Finally we must look at attitudes to professorial status once again, and try to assess the weights of our two independent variables. In this case, however, there is a relationship (though weak) between the independent variables: cosmopolitans are more likely to favor expansion than locals (see Appendix A, Table 6.39), presumably because expansion is likely to improve the prospects of any discipline for carrying on research, while locals would be more concerned to preserve the existing character of the institution to which they are attached.

Table 6.26, however, presents a three-variable distribution in the same format, and once again we find that both variables retain much of their impact even when the other is controlled. This is especially clear if we focus on the proportion of "elitists" in the several categories: in every category of support for expansion, cosmopolitans are less likely to be elitist than locals; and in almost every degree of cosmopolitanism, "expansionists" are also less likely to be elitists about the Professorship. And, taken together at the extremes, 35% of the localists who oppose expansion are also likely to be elitists about academic rank, as compared with only 8% of the cosmopolitan expansionists.(19)

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(18) In Appendix A, Table 6.40 we show the absence of relationship when we examined the joint effect of cosmopolitanism-localism and attitudes to expansion on attitudes to professorial power.

Conclusion

The full implications of the findings reported in this chapter--for the organization of universities and the administration of departments, and for changes in the forms and exercise of academic power with the growth of numbers and of research--must be postponed for later discussion. For the moment, it is enough to note that we are uncovering systems of attitudes, orientations and beliefs held by academic men about a variety of social, political and academic matters which show both logical and empirical relationships among their parts. In a sense, we are specifying, through this analysis of responses to survey questions, a number of distinct social-academic philosophies, held, with varying degrees of strength and consistency, by men with different characteristics and differently located within the university system. These social-educational philosophies are linked to the larger society, to its class structure and political divisions; to the organization of the university system (in universities and departments), and of academic science and scholarship (in disciplines and research areas); and to the partly conflicting functions of higher education for the transmission and the creation of knowledge, through teaching and research. But these social-educational philosophies of academic men not only can be better understood by reference to the character of British society and its higher learning: they also will influence the rate and forms of social and educational change in Britain, and will affect as well as reflect the impact of inevitable growth on Britain's elite university system. What these effects may be are questions to which we will return again and again.

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(19) In Appendix A, Table 6.41 we show the joint effect of political position and cosmopolitanism-localism on attitudes to professorial status: again we found no real relationship.

A recurrent if largely unanticipated theme in the preceding chapters has been the extraordinarily large bearing that our university teachers' political positions and loyalties have on their more narrowly academic attitudes and behaviors. In our final substantive chapter we explore that matter in greater detail.

CHAPTER VII

THE POLITICS OF BRITISH ACADEMIC MEN

In this chapter we shall explore the political views of our university teachers. We have already seen in earlier chapters that political views have a bearing on problems experienced by teachers within the university system, in particular on the questions of expanding the system (Chapter III) and of the internal government and administration of departments (Chapter VI). In the course of this chapter we shall again refer to these questions, and we shall attempt to discover what other views are related to political dispositions. If any justification is needed for an interest in political views, the relationships which we shall show could provide it in themselves. But over and above this, politics have an interest of their own, to a sociologist as well as to a political scientist, and in a slightly different way. It is not necessary for our purposes to assert the primacy of specifically political views (e.g., the support of a particular political party). Rather, we take political views as an accessible and fairly clear indicator of different styles of thinking about a very large range of problems, of attitudes and orientations whose range is much wider than the problems on which there are differences between the national political parties in Britain today. And we shall ask what are the forces, both outside and inside the university world that create, or support, or are at variance with these views.

The plan of the chapter is dictated by these interests. In the first section we shall show how political views are distributed within our sample of university men, and discuss how this compares with other groups in Britain In the second section we examine some of the possible sources of these political views, concentrating on the social origins and the past educational history of our subjects. In the third section we look at the distribution of political dispositions in different segments of the academic community, primarily to discover whether different subjects and different types of university vary in their "political climate," but also to see whether strains may arise in some areas. Finally, we look at the correlates of different political views in attitudes to problems both within and outside the universities.

I. The Politics of Academic Men

Our sample of respondents was asked two questions that bore directly on their political views. Of these the first referred specifically to political parties, and simply asked (Q53): "What party have you generally supported?" Among the 1306 respondents who answered the question(1) the proportions were as follows:

Table 7.1 Party Support

Conservative	Labour	Liberal	Other	None	Total
35%	41%	14%	1%	8%	(1306)

We do not have any precisely comparable figures from other studies. Most studies of political behavior are concerned with actual voting behavior, or attitudes at one particular time. But it is interesting to compare these proportions (in reply to a questionnaire given in early 1964) with the general election figures of late 1964. If we revise Table 7.1 to exclude those who answered "none" we find that, on the basis of their "general support" for a particular party, we might expect 38% to vote Conservative, 45% Labour, 15% Liberal, and 1% for other parties. In the 1964 election, voting figures for the whole population were 43% Conservative, 44% Labour, 11% Liberal and 1% for all others. In other words, there seems to be slightly more support in the academic community for the Liberal party than in the general population, and slightly lower support for the Conservatives. This is interesting enough in itself; but, in fact, the academic profession is more unlike its counterparts in the general population than these figures show.

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(1) 102, or 7% of the sample did not answer the question.

Many investigators of British political behavior have noted that Britain shows a high degree of "class voting." The two major parties are widely recognized as representing the middle and working classes respectively. (Indeed, there are close formal links between the Labour party and the trades unions.) Although this may be said of most Western two-party democracies, the link seems to be particularly strong in England.(2) Now university teachers are clearly members of the professional, upper-middle class; and the voting behavior of this class, at about the same time as this survey, is shown by an eve-of-election poll taken by Gallup in October 1964 (Table 7.2).

Table 7.2 Eve-of-Election Voting Intentions (October 1964) by Social Class(3) (per cent)

	Social Class			
	Upper Middle Class ("Average Plus")	Middle Class ("Average")	Working Class ("Average Minus")	Very Poor ("Very Poor")
Conservative	77	65	33	32
Labour	9	22	53	59
Liberal	14	13	14	9

Totals not given

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(2) A recent study by R. Alford, Party and Society, (Rand McNally, Chicago, 1963) compared four countries, Britain, USA, Canada and Australia, and showed that "class voting" was highest in Britain.

(3) Source: Henry Durant - The Gallup Poll: "Voting Behavior 1945-64", in R. Rose (ed.) Studies in British Politics, MacMillan, London, 1966. The two descriptions of the categories ("upper middle" against "average plus," etc.) are both used by the Gallup Poll and its analysts, apparently indifferently.

Clearly, university teachers look very much more like the working class in their political affiliations than like the upper middle class to which they belong in respect to their incomes, status, education, styles of life and other objective indicators of social class.(4)

We shall be looking later in this chapter (in the next section) at what we have described as the sources of political views, chiefly the social origins and educational background of our subjects. We shall see that these account for some of the variation that we find within this particular group, just as they do for members of any one occupational group. But beyond these factors there is the overall pattern to be considered, which differs from that of other occupational groups of similar social status and income levels.

This phenomenon--the "Leftism" of academic men compared with other professionals--has been noted before.(5) Attempts to explain it must draw on our knowledge of political socialization, and this may be divided into three stages. The first is in the home and family. We shall see later in this chapter that there is quite a strong relationship between family background (especifically the occupation of our respondents' fathers) and their political views in adult life. But this of itself is not enough to explain the difference between academic men and other professionals, unless it is the case that university teaching recruits from a much wider range of social origins than do the other professions. While this may be partly true, we do not believe that the difference is enough to explain the wide divergence that we have found. The same comments apply to the next stage of socialization, the educational experience in school and university. (We shall see later that the type of school attended is related to social origins.) As to university education, Richard Rose observes that

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(4) A narrower segment of the population, "higher professionals," including "doctors, lawyers, architects, clergy, accountants, etc.," was analysed by Mark Bonham, "The Middle Class Elector," British Journal of Sociology, 1952, 3. Their vote in 1951 was found to be 84% Conservative, 6% Labour, 10% others.

(5) See, for example, S. M. Lipset, Political Man, Anchor Books, New York, 1963, p. 335-8.

> ...for the small group that attends universities, this experience appears to have an important effect in breaking them loose from attitudes inculcated by their secondary school and their families, regardless of their nature.(6)

In other words, for university graduates, the experience of university life loosens the loyalties of their origins, and opens them to the political values of the academic community. This is in part true, and as some Gallup data show,(6a) differences between university students from working and middle class backgrounds are much narrower than comparable differences in the general population. (This is undoubtedly a product of selective recruitment from these classes of origin, as well as of the "homogenizing" effect of the university experience.)

The predominantly "left-liberal" climate of most academic communities, in Britain as elsewhere, has its roots in the historical links of modern scholarship with the empirical, secular, skeptical traditions of the Enlightenment, and its political expressions in liberalism and democratic socialism. These links are worth exploring elsewhere. But, while these traditions help explain the predominantly "Left" orientations of academic men, as compared with their professional counterparts in law, medicine, accountancy, etc.,(7) we are still left with the considerable variation of political sentiments *within* the academic profession. We see this not only in the distribution of the party preferences but also in their political "self-identifications."

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(6) R. Rose, *Politics in England*, Faber, London, 1965, p. 69.

(6a) See note (12) to this chapter.

(7) See note (4) to this chapter.

Our university teachers were asked not only to say what party they supported, but also to place themselves in the political spectrum ranging from Far Left to Far Right (Table 7.3).

Table 7.3 Political Spectrum

Far Left	Mod. Left	Center	Mod. Right	Far Right	Total
5%	48%	28%	18%	1%	(1362)

We see that university teachers tend to place themselves somewhere to the left of center.

Lastly, our sample was asked how interested they were in politics. The findings are given in Table 7.4:

Table 7.4 Interest in Politics (university teachers)

		Interested		
Extremely	Moderately	Slightly	Not at All	Total
18%	54%	22%	6%	(1397)

By way of comparison, Table 7.5 gives answers to a similar question for a national sample of British voters in 1960.(8)

Table 7.5 Interest in Politics (national sample)
(per cent)

			Interested		
Samples	Very	Fairly	Not Really	Not at All	Total
All voters	15	37	33	15	not given
Middle class	17	52	22	9	" "
Working class	14	30	38	18	" "
Left school after 16	19	53	22	6	" "

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(8) Mark Abrams, "Social Trends and Electoral Behaviour," in Rose, 1966.

In this case (if we may take the categories of answers as roughly equivalent) university teachers are very similar to the middle-class population, and almost identical to the group that left school after 16.

We can now move on first to examine the relations between our subjects' party preferences and their self-location on a political spectrum, and then to look at the degree of political interest expressed by those with different party loyalties. Table 7.6 (below) bears on the first of these questions.

Table 7.6 Political Position of Supporters of Different Parties (per cent)

	Party Support				
Political Position	Conservative	Labour	Liberal	Other	None
Far Left	0	1	1	29	2
Moderate Left	8	83	53	57	43
Center	41	6	40	14	46
Moderate Right	49	1	6	0	8
Far Right	2	0	0	0	1
Totals	(454)	(534)	(182)	(14)	(96)

Among Conservative party supporters, a surprisingly large number of academic men place themselves in the Center or even Moderate Left categories. It would be interesting to know what is their point of reference. It is probable that those who call themselves "Center" think of themselves as on the Left wing of the British Conservative party. (But it could also be that they are comparing themselves with a more international view of the political spectrum, or with a more historical and not immediately contemporary view. In this case it might be possible to call the present Conservative party a party of the Center, although the Right is in Britain at present merely hypothetical.) Labour supporters are very highly concentrated in the Moderate Left category, and it is interesting that those who support other parties have (among their 14 cases) a higher proportion on the Far Left.[9] Both Liberal supporters, and those who have not generally supported any one party, are to be found roughly in the middle between the Conservative and the Labour supporters.

Table 7·7 Interest in Politics of Supporters of Different Parties (per cent)

	Party Support									
Interested	Conservative		Labour		Liberal		Other		None	
Extremely	7		32		8		40		11	
Moderately	57		53		56		53		36	
Slightly	28	36	13	15	30	37	0	7	33	53
Not at all	8		2		7		7		20	
Totals	(461)		(535)		(183)		(15)		(107)	

Table 7·7 shows that the supporters of no party have a rather higher proportion who feel slight or no interest in politics. These latter are presumably non-voters, or reluctant voters; whereas those who do express an interest must be genuine "floating voters." More striking, however, are the differences between those who report consistent support of a single party. One third of the Labour supporters describe themselves as "extremely interested" in politics, and only 15% are slightly or not interested, as compared with over a third of the Conservatives and Liberals who are relatively uninterested in politics.[9a] But the difference between Conservatives and

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[9] We may perhaps assume that most of these are supporters of either the Communist party or the small Welsh, Scottish and Irish nationalist parties, many of whose policies are to the Left of the Labour party.

[9a] The proportions among the 15 supporters of small parties are even higher, which is perhaps not surprising, since a considerable degree of interest is really a prerequisite even for noticing the existence of these parties.

Liberals on one hand, and Labour on the other is intriguing. It may be that Labour supporters tend to be younger and so more enthusiastic; but this is the "image" of itself that the Liberal party especially has been cultivating in recent years. The results here do not confirm that image; Liberal university men are evidently not more enthusiastic than are their Conservative colleagues.(10) The explanation of the high political interest of Labour

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(10) The youthful image projected by the Liberals in recent years is not confirmed by their support among university teachers: they gain roughly the same degree of support in all age categories. But Labour supporters are somewhat younger, on average, as Conservatives are somewhat older.

Table 7.8 Party Preference by Age (per cent)

	Age				
Party	Under 30	30-34	35-39	40-44	45+
Conservatives	28	31	35	41	40
Labour	50	46	41	35	37
Liberal	13	12	14	16	15
Other	0	1	1	2	1
None	10	10	9	6	7
N	(214)	(249)	(278)	(185)	(377)

There is also a steady decline (at least up to age 40) in support for the Left with increasing age.

Table 7.9 Position on Political Spectrum by Age (per cent)

	Age				
Political Position	Under 30	30-34	35-39	40-44	45+
Far Left	7	5	4	3	4
	62	56	55	46	48
Moderate Left	55	51	51	43	44
Center	26	23	30	32	29
Right	13	20	16	22	23
N	(227)	(257)	(287)	(189)	(399)

supporters probably lies more in the nature of Left-wing ideology and ideas: it seems reasonable that, on average, those whose predilection in politics is for change would be more interested than those who simply want to preserve the status quo:(11) and that, as we suggested earlier, is one of the most noticeable characteristics of Conservative philosophy at present.

It may be useful to look at this question of interest in politics as it relates to our subjects' place in the political spectrum. Is it simply true that the further Left, the more interest? We shall look first at the direct relationship, and then compare differences in position on the spectrum within the main parties. It may turn out that, in fact, it is the Center that is least interested, and that the Far Left of the Labour party are those who carry the rest by their interest, while the Right of the Conservatives are more interested than others in their party.

Table 7.10 Interest in Politics, by Political Position (per cent)

	Political Position				
Interested	Far Left	Mod. Left	Center	Mod. Right	Far Right
Extremely	56	24	9	6	8
Moderately	32	57	51	56	58
Slightly	6	17	30	28	25
	11	19	39	38	33
Not at all	5	2	9	9	8
Totals	(62)	(654)	(380)	(250)	(12)

On first inspection, before we break by party simultaneously, there seems to be a direct, unilinear relationship between interest and preference between the Center and the Far Left. There is a very faint increase in interest of the Right over the Center, but it is very small, and even the 12 respondents who described themselves as "Far Right" are scarcely more interested than the Moderate Right. But on the Far Left the interest is very high: compared with one third of Labour party supporters (Table 7.7) we see here that over half of those on the Far Left are extremely interested in politics.

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(11) The connection between political interest and preference is discussed in S. M. Lipset et al., "The Psychology of Voting" in G. Lindzey, Handbook of Social Psychology, Addison, Wesley Publishing Co., Reading, Mass., 1954, vol. II, 1126ff.

Table 7.11 Interest in Politics, by Party and Spectrum (per cent)

	Party Support									
	Labour			Conservative			Liberal		None	
	Political Position*									
Interested	FL	ML	C/R	ML	C	MR/FR	FL/ML	C/R	FL/ML	C/R
Extremely	54	31	13	11	8	6	7	8	19	6
Moderately	35	55	56	62	57	56	65	46	42	35
Slightly Not at all	11	13	31	27	34	37	27	46	39	60
Totals	(54)	(439)	(39)	(37)	(185)	(232)	(98)	(83)	(43)	(52)

*Combined where necessary to produce a meaningful number of cases.

When we look at political interest by political position within the parties (Table 7.11) we find that within all three parties, and also for those who claim to support no party, those on the Left show a higher interest in politics. And this seems to apply both to party preference and to political self-placement. Owing to different combinations of the spectrum divisions it is not always possible to compare those in the same position on the spectrum as between the parties; but this can be done for those on the Center and Right. If we compare the third column of Labour supporters, the average of the second and third for the Conservatives, and the second column for the Liberals, we find that Labour supporters are more interested in politics than those of the other two parties, even when they assign themselves to the same place in the political spectrum.

Political activity

We have another measure of interest in the questionnaire; respondents were asked if there were any extra-academic activities that took up much of their time; and one of the options to be checked was political activity. This gives us a measure of active interest, and it will be interesting to see if this resembles our subjects' assertions of their interest in politics in its relation to political sentiments. Tables 7.12 and 7.13 relate political activity to party support and position in the spectrum.

Table 7.12 Political Activity "taking up an appreciable amount of time" by Party Support

	Party Support		
	Conservative	Labour	Liberal
Political activity as % of	2%	8%	6%
total mentioning any activity	(158)	(179)	(65)
Political activity as % of	1%	3%	2%
total of party supporters	(461)	(537)	(184)

Table 7.13 Political Activity by Political Position

	Political Position			
	Far Left	Mod. Left	Center	Right
Political activity as % of	33%	5%	3%	2%
total mentioning any activity	(24)	(214)	(119)	(104)
Political activity as % of	13%	2%	1%	1%
total of category	(62)	(657)	(381)	(262)

The numbers who mentioned spending "an appreciable amount of time" on political activities are very small. Indeed, it is only by showing them as a percentage of those who mention any activities that we can really detect a meaningful pattern. But in this case we find that activity like "interest," is higher on the Left, both in terms of the spectrum and of party support, but it is only those on the Far Left who show a sharply higher level of political activity.

II. The Sources of Political Support

We have seen that these academic men are somewhat more Left than other professional men, though on average probably no more politically interested or active than other upper middle class people. But what are the sources of their political views, and how can we explain variations among them?

Our analysis will range as widely as possible over such possible agents of political socialization as are accessible to us. These divide into two broad categories, corresponding to the two chief agents of early socialization, namely, the family and the school.

There is relatively little in the literature on this subject that is directly helpful to us; for a large proportion of that devoted to the influence of family background concentrates on the relation between parents' and children's party support. We did not ask about parents' voting, and we shall concentrate on the social class of our subjects' parents, as measured by father's occupation and education. There is a wealth of literature (as was partially seen above) on the relation of a man's own social class and his politics, but not much that would relate to our somewhat unusual problem of a homogeneous occupational group coming from different backgrounds. Similarly, when we move on to the educational experience of our respondents, we do not find much to guide us, since most inquiries have been devoted to the effect of different amounts of education. All of our subjects have had nearly the same amount, but in different types of schools. However, our general expectations should be fairly clear, and we shall spell them out as we proceed.

A. Origins

1. Father's occupation

It would be natural to expect that academic men with working class parents would be more likely to be Labour supporters; despite Rose's remarks (quoted above, p. 5) that university education has the effect of liberating students from the effects of their earlier experience, we should expect at least some residual effect.(12) In any event, our original expectations are born out by Table 7.14.

Table 7.14 Party Preference by Father's Occupation (per cent)

Teacher's Party Preference	Father's Occupation					
	Professional	Intermediate	Skilled	Semi-skilled		Unskilled
Conservative	42	39	27	24	24	21
Labour	33	36	50	59	61	71
Liberal	15	14	16	6	5	0
Other	1	2	1	0	1	7
None	10	9	7	11	9	0
Totals	(255)	(520)	(419)	(71)	(85)	(14)

There is a very large and clear difference in party preference of men of different class origins, and in the expected direction. Only one third of those with professional fathers support the Labour party, compared with almost two thirds from semi- or unskilled manual backgrounds. The difference by class origin in support for the Conservatives is also marked, though some of the loss of Labour support among sons of middle class origin goes to the Liberals. Indeed, as we see in Table 7.16 (below), it is partly to the Liberals rather than Labour that sons of professionals turn if they have Left-wing sympathies. But men's (self-assigned) position on a political spectrum is much less closely related to these social origins than is their party preference (Table 7.15).

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(12) In a study of London university students Abrams (in Rose, 1966, p. 142) found that children of working-class parents were somewhat less likely to vote Conservative, and more likely to vote Labour, than those of middle-class parents; but for both groups there had been a considerable movement towards a common center from the voting behavior of their parents. The difference between the groups that we find in Table 7.14 is however much larger than Abrams finds in his university student sample.

Table 7.15 Political Position by Father's Occupation (per cent)

Teacher's Political Position	Father's Occupation					
	Professional	Intermediate	Skilled	Semi-skilled		Unskilled
Far Left	5	4	4	7	10	31
	46	51	59	60	61	69
Moderate Left	41	47	55	53	51	38
Center	31	29	26	22	23	31
Right	23	20	15	19	16	0
Totals	(265)	(539)	(439)	(74)	(87)	(13)

But there is still a difference: 46% of the children of professional fathers see themselves as on the Left, against 61% of those from manual-worker families. In order to clarify what is happening here, we show in Table 7.16 the bearing of class origins on distribution of party support for each position on the political spectrum (see Table 7.16 on next page).

This table shows very clearly that in all categories of the spectrum, even the Right, the Labour party has more pull and the Conservative party less for men from working class origins.

This type of finding is fairly common in studies in both Britain and the United States. Hyman(13) documents it fairly thoroughly for the U.S.A.; and

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(13) H. Hyman, Political Socialisation, Glencoe, Free Press, 1959, chap. IV passim.

Table 7.16 Party Preference by Father's Occupation, Within Categories of Political Position
(per cent)

	Political Position											
	Left				Center				Right			
	Father's Occupation				Father's Occupation				Father's Occupation			
Party	Profes-sional	Inter-mediate	Skilled	Manual	Profes-sional	Inter-mediate	Skilled	Manual	Profes-sional	Inter-mediate	Skilled	Manual
Conservative	7	7	3	6	55	59	49	41	93	93	86	71
Labour	67	68	77	87	9	7	15	18	0	0	3	21
Liberal	18	15	13	6	20	20	27	6	3	5	6	0
Other/None	8	11	7	2	16	13	9	35	3	3	5	7
N	(113)	(261)	(249)	(52)	(75)	(137)	(102)	(17)	(61)	(109)	(63)	(14)

sums it up in a quotation from West:(14)

> A man is born into his political party just as he is born into probable future membership of the church of his parents.

This is far more true of the general population than of academic men, and in our context is an exaggeration; but it is clear at least that those brought up in families whose adherence has traditionally been to the Labour party find it harder to break loose from the party than to change their general political attitudes, especially when the parties, in Britain as in the U.S.A., are themselves broad coalitions hospitable to men of widely differing political views.

2. Father's education

We should expect the effect of father's education to be broadly similar to that of his occupation, since education is so closely linked to future occupation. Before examining that, however, we should note one finding of the effect of length of education on a man's own political views. Rose(15) shows the voting intentions of a national sample in 1964 broken down according to the age at which the voter left school. These are shown in the table below.

Table 7.17 Voting Intentions (1964) by Age of Leaving School (national sample) (per cent)

	Age Left School				
Party	14 or earlier	15	16	17-18	19 or later
Conservative	37	40	58	70	58
Labour	52	49	26	15	20
Liberal	10	10	16	14	20
Other	1	2	1	1	2

(Totals not given)

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(14) Quoted in above from West, *Plainsville, USA*.

(15) Rose, (1965), op. cit., p. 69: source is National Opinion Polls.

In the national sample we find that the proportions voting Conservative steadily increase with length of education up to 18 years old, but that the small group that received some higher education is more likely again to vote either Labour or Liberal, and certainly less likely to vote Conservative. This may have to do both with the liberating quality of higher education about which we speculated earlier, and also with a difference between the higher professional occupations that require a university degree compared with those professions or sub-professions for which education up to 18 is sufficient.(16) This may help us to interpret the following table based on our university teachers.

Table 7.18 Party Support by Age at Which Father Left School (per cent)

Teacher's Party Support	Father's School-Leaving Age: 13 or earlier	14	15	16	17	18 or later
Conservative	26	28	38	44	45	38
Labour	50	49	44	32	38	38
Liberal	13	13	11	17	13	14
Other	1	2	0	0	0	2
None	10	9	7	8	4	8
Totals	(220)	(349)	(88)	(115)	(106)	(240)

Here again we find steadily increasing support for the Conservatives and decreasing support for Labour with increasing education for the father, up to the age of 16 or 17. Beyond this point, as in the national sample shown in Table 7.17, support for the Conservatives turns down, and that for Labour or the Liberals increases. Once again the effect of family background is clear, though not quite as strong as it was in the case of the father's occupation.

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(16) But, for our sample at least, it does not seem to matter what kind of higher education the father had. When we looked at those academic men whose fathers had some higher educations, we found that it made little difference to the party preferences of their sons whether their fathers had been to Oxbridge, to other universities, or to other institutions of higher education.

But the connection between education and class is so close (17) (in Britain as in most other countries), that unless we control for class origins we cannot know how to interpret Table 7.18. In Table 7.20 we look at the bearing of father's education on the party loyalties of academic men for teachers of middle and of working class origins separately.

Table 7.20 Party Support by Father's Class and Amount of Formal Education (year father left school) (per cent)

	Father's Occupation					
	Non-Manual			Manual		
	Father's School-Leaving Age					
Teacher's Party Support	13-15	16-17	18+	13-15	16-17	18+
Conservative	36	46	38	22	41	39
Labour	37	33	38	59	35	39
Liberal	14	15	14	12	18	17
Other/None	13	6	10	8	6	6
N	(277)	(164)	(216)	(371)	(51)	(18)

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(17) The relation of fathers' education to their economic class is predictably large:

Table 7.19 Length of Father's Education by Father's Class Position (per cent)

	Father's Occupation	
Father's School-Leaving Age	Non-Manual	Manual
13-15	42	84
16-17	25	12
18+	33	4
N	(657)	(440)

First, we see again that the sons of men who prolonged their education past 18 are a bit less likely to support the Conservatives than those of men who did not go on to some kind of higher education. But more important, we see that the difference in party loyalties of men from middle and working class backgrounds decreases the more education their fathers had. Essentially, the difference in party preference among academics of working and middle class origin is supplied almost wholly by the men whose fathers did not attend school beyond 15: it is among the poorly educated that class rather than education is determining, even on the next generation. Looked at another way differences among 5 of the 6 class and education categories in Table 7.20 are small: the Conservatives get about half of the major party support in all five (the range is from about 49% to 59%). But among the sons of the large body of manual workers who had little formal education, support for the Tories is only 27% of the major party "vote." Among the children of the minority of manual workers whose fathers' education exceeded the standard minimum for their class, the distribution of party preferences is almost indistinguishable from that of their middle class counterparts. This minority of workers who had gained more than the minimum working class education had in many cases acquired the political preferences as well as the education of the middle class, and we see the results in their university teacher children. The continuing effects of social origins on the party loyalties (18) of academic men could hardly be more strikingly demonstrated.

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(18) When we examined the distribution among university teachers on the political spectrum in the same way, we found relatively smaller variations by extent of father's education. Again, we see that social origins have their continuing effect on the politics of academic men by way of party loyalties rather than directly on political sentiments.

3. Family religious background

Religion has always been seen as an important variable in political socialization. This is natural enough, since the various religions and sects often provide clear ideologies which may dictate or at least encourage particular political dispositions. The phenomenon is seen very clearly in the United States where the number of different churches provides a wide range of attitudes to their members. In England the catch-all nature of the Anglican church allows a variety of opinions, both political and religious, to shelter beneath its banner; but here, too, studies have found a considerable difference among different religious groups. A recent example is that of Alford,(19) who examined voter preferences in 1962 in four "Anglo-Saxon" countries, as these varied among people of different faiths and denominations. In Table 7.21 (over) we show his findings for a sample of the whole population of England, in terms of the intended Labour vote. Beneath it is the proportion of Labour supporters in our sample.

On the whole, the correspondence is very close. For those brought up in Anglican, Scots Presbyterian, or agnostic families, we find that their voting preferences are very similar to those of a national sample according to their present religious denomination. In the case of the Roman Catholics, the difference may be explained by the presence in the national sample of a large number of working-class members (largely Irish) of the Catholic church in England, whose class background evidently outweighs their religious beliefs. There is a small difference between our children of nonconformist parents and the nonconformists in the national sample, but it does not deviate far from the national average in either direction.

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(19) Alford, op. cit., Table 6-3, p. 136.

Table 7.21 (a) Proportion of Labour Vote-Intentions (1962) by Current Religious Preference (national sample); (b) Proportion of Labour Supporters by Parents' Religious Preference (university teachers)

(per cent)

	Church of Scotland	Church of England	Roman Catholic	Noncon-formists	Jewish	Other	None (Atheist, Agnostic)	All Respondents
(a) National sample+	33	40	58	36	*	40	61	41
(b) University teachers	30 (208)	40 (598)	36 (56)	44 (291)	61 (46)	33 (12)	62 (86)	41 (1306)

+ No totals given by Alford.
* No distribution for Jews provided by Alford.

Before discussing the effect of religion directly, we should look at the detailed distributions, both of party preference and of position on the spectrum, in our own sample. These are given in Tables 7.22 and 7.23 (on the following page).

We find (Table 7.22) that the Church of Scotland families provided the strongest Conservative and weakest Labour support. This church is the largest representative in Great Britain of the Calvinist tradition; in Britain as in America churches in that tradition have Conservative leanings on moral and economic issues. After them, the Roman Catholics show the least support for Labour: the Catholic Church does not, in general, favor socialist parties; but children of Catholic parents in our sample also support the Conservative party as infrequently as any even of the most "Left-wing" groups, the Jews and the agnostic/atheists. Instead, a very high proportion of them either support the Liberals or no party. We shall see below (Table 7.23) that they are fairly Left-wing. The Church of England is fairly close to (but a little more Conservative than) the average of all groups. The nonconformists, most of whose churches in Britain have traditionally favored the Liberal or Labour parties, do so in our sample also. Lastly, those whose parents were either Jewish or had no religion prove to be the strongest Labour supporters. Again, this has been found in other studies also.(20)

Looking at the relation of religion to political dispositions (Table 7.23), we again find the Church of Scotland to be the most conservative group. The Church of England is fairly near the average, and then follow the Roman Catholics and the nonconformists close together, with the children of agnostics and, finally, Jews, the most Left-wing of all. In other words, the picture is much the same as before, with two reservations: children of

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(20) See G. Lenski, The Religious Factor, Anchor Books, New York, 1963; chap. 4, "Religion and Politics," pp. 134-211.

Table 7.22 Party Preference by Parents' Religious Denomination (per cent)

	Parents' Denomination						
Teacher's Party Support	Church of Scotland	Church of England	Roman Catholic	Noncon-formists	Jewish	None	All
Conservative	46	41	21	25	20	21	35
Labour	30	40	36	44	61	62	41
Liberal	18	10	27	21	7	11	14
Other	1	0	0	3	4	2	1
None	6	9	16	8	9	5	8
Totals	(208)	(598)	(56)	(291)	(46)	(86)	(1306)

Table 7.23 Political Position by Parents' Religious Denomination (per cent)

	Parents' Denomination						
Teachers's Political Position	Church of Scotland	Church of England	Roman Catholic	Noncon-formists	Jewish	None	All
Far Left	2	4	3	4	6	12	5
Moderate Left	42	45	50	54	71	58	48
Center	29 }56	30 }51	23 }46	28 }42	12 }22	20 }29	28 }47
Right	27	21	23	14	10	9	19
Totals	(216)	(618)	(60)	(309)	(48)	(89)	(1362)

Catholic parents turn out on the whole to be Left-wing non-socialists (we shall try to determine below whether this is a genuine result of their religious background, or whether it results from different class origins); and secondly, the differences here are considerably sharpened. Indeed, the difference in proportions who are "Left" between Jews and the Church of Scotland group (77% and 44%) is greater than between men of widely different class origins (see Table 7.15). Religious upbringing is a powerful determinant of political ideology and disposition.

It is now obviously necessary to look at the combined effects of religious background and social origins. We have already expressed suspicion in relation to the Roman Catholics, and it may be that other religious denominations too have different effects depending on the social background of the family.

In both Tables 7.24 and 7.25 (on the following page) we find that the differences between the religious groups that we saw above (Tables 7.22-23) persist even when social origins are taken into account. As before, the Church of Scotland is consistently farthest to the Right, while the children of Jewish or agnostic parents are farthest to the Left, both on the political spectrum and in terms of their party support. The other groups fall in between in the same order, with the exception of the Roman Catholics. In the case of party support (Table 7.24) we find that Catholics with non-manual worker fathers support Labour as little as do those brought up in the Church of Scotland, but they support the Conservative party as little as do those from Jewish and agnostic families. However, when their fathers were manual workers they seem more willing to support the Labour party, coming near the mean for those from a similar class background. The difference is even clearer in the following table. Those from non-manual Catholic families are not noticeably Left-wing, but those from manual families are distinctly

Tables 7.24 & 7.25 Party Preference and Political Position by Father's Occupation and Parents' Denomination (per cent)

7.24

	Father's Occupation											
	Non-Manual						Manual					
	Parents' Denomination						Parents' Denomination					
Teacher's Party Support	Church of Scotland	Church of England	Roman Catholic	Nonconformist	Jewish	None	Church of Scotland	Church of England	Roman Catholic	Nonconformist	Jewish	None
Conservative	55	45	24	30	25	24	34	33	14	18	8	12
Labour	26	35	26	34	53	55	36	51	52	56	77	77
Liberal	13	11	32	22	9	10	22	8	19	20	0	12
Other	1	0	0	5	3	3	1	0	0	1	8	0
None	5	9	18	10	9	7	7	8	14	5	8	0
(Totals)	(120)	(362)	(34)	(154)	(32)	(58)	(85)	(221)	(21)	(132)	(13)	(26)

7.25

Teacher's Political Position	Church of Scotland	Church of England	Roman Catholic	Nonconformist	Jewish	None	Church of Scotland	Church of England	Roman Catholic	Nonconformist	Jewish	None
Left	40	47	44	55	71	62	50	54	70	62	92	90
Center	29	29	28	33	18	28	30	29	13	25	0	7
Right	31	24	28	12	12	10	20	17	17	13	8	3
(Totals)	(129)	(369)	(36)	(162)	(34)	(58)	(84)	(230)	(23)	(141)	(13)	(29)

Left-wing. In both cases support for the Labour party is somewhat less than we might expect from their position in the spectrum.

More generally, we can see from these tables that both the factors of father's occupation and family religion are important in determining future political orientations. Within the two occupational groups, as we have seen, religious variations still make a difference. Equally, within each denomination the children of manual workers are further to the Left than those of non-manual workers, and are relatively more likely to support the Labour than the Conservative party. The power of these two factors in combination can be seen by looking at the extremes. Just over three quarters of those from manual Jewish or agnostic families are Labour supporters, against just over a quarter from non-manual Church of Scotland families. In the case of the political spectrum, the range in the same groups is from 92% to 40% who are "Left." It is clear that though their education and their present occupations may have "liberated" university teachers from the effect of their upbringing to some extent--we might find even larger differences in the population as a whole--yet their upbringing still has a very powerful effect on their political views.(21)

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(21) Please see next page.

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(21) The residual influence of class origins on political dispositions differs for men of different religious backgrounds.

Tables 7.26-27 Political Difference by Class Origins (% non-manual minus % manual) for University Teachers of Varying Religious Background

Table 7.26 Party Preference

	Parents' Religious Denominations					
Party	Church of Scotland	Church of England	Roman Catholic	Nonconformist	Jewish	None
Conservative	21	12	10	12	17	12
Labour	-10	-16	-26	-22	-24	-22
Liberal	-9	3	13	2	9	-2

Table 7.27 Political Position

Political Position						
Left	-10	-7	-26	-7	-21	-28
Center	-1	0	15	8	18	21
Right	11	7	11	-1	4	7

Among Jews, Catholics, and agnostics/atheists of working-class origins, the proportions who identify themselves as on the Left run between 21% and 28% higher than among their co-religionists of middle-class origins. By contrast the differences by class origins among Church of Scotland, Church of England and nonconformists are under 10%. This does not mean that for the former groups religion is a weak determinant of political disposition; indeed, both the Jews and the agnostics/atheists are conspicuously high in support for the Left. Rather, for these groups both class and religious origins are strong determinants of their political dispositions; for them, as for the middle-class Catholics, the influence of their deviant social statuses on their political perspectives persists into adult life, against the homogenizing influence of a common higher education and adult class and occupation.

B. Educational career

1. Secondary schooling

We have now dealt with one of the two formative influences during the childhood of our respondents, their family background. The other important agent of socialization is, of course, the school. Since England does not (or did not at the time our respondents were at school) have a comprehensive school system, but rather one that is stratified, we should expect to find political differences according to the type of school attended.

The stratification of the school system is both directly and indirectly related to the social class position of parents. The direct relation stems from the difference between the fee-paying "public schools" and the free state-supported system of "grammar" and "secondary modern" schools. (In between fall the "direct-grant" schools, schools independent of local authority control but supported by the state through the national Ministry of Education, which charge fees to some pupils but are required by law to provide a certain number of free places.) The effect of charging fees in the public schools, combined with their perceived advantages in terms of social status and often educational standards, is to make them much more widely available and attractive to the middle and upper-middle classes. But the two types of local authority schools also differ in class recruitment. Selection of the roughly 20% of state-school pupils who are to attend grammar schools has since 1944 been made at 11 years on the basis of one or both alternatives of intelligence tests and teachers' recommendations. The latter tend to be biased in favor of middle-class children, and it has been shown that performance at this age on supposedly objective intelligence tests is also related to class background.(22) In any case, the result has been very well documented, especially by the Crowther report, that grammar schools generally have more than their share of middle-class children, compared with the proportion in the age grade, and secondary modern schools more working-class children.(23) We should expect to find in our sample also that social origin has an important bearing on the type of school attended. Table 7.28 shows, first of all, the proportions having attended different types of school, and then Table 7.29 relates this to father's occupation.

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(22) A. H. Halsey et al., Education, Economy and Society, Free Press, New York, 1961: articles in Parts III and IV.

Table 7.28 Type of School Attended

Public School	Direct Grant	Grammar School	Other	None	Total
21%	10%	55%	13%	1%	(1387)

Not surprisingly, our respondents were very largely educated in one of the first three types of school, those which provide channels to the universities: fewer than 13% of our sample were educated at secondary modern or technical schools, where over 70% of British school children now receive their

Table 7.29 Type of School Attended by Father's Occupation (per cent)

	Father's Occupation			
School	Professional	Intermediate	Skilled	Semi- & Unskilled
Public	47	22	8	1
Direct Grant	9	11	12	7
Grammar	32	53	68	75
Other	11	14	11	15
None	0	1	1	2
Totals	(271)	(552)	(441)	(88)

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(23) 15 to 18: A Report of the Central Advisory Council for Education, H.M.S.O., London, 1959-60; see also Jean E. Floud et al., Social Class and Educational Opportunity, Heinemann, London, 1958.

education.[23a] More than half went to grammar schools, and just over one fifth to independent public schools.

As in the population as a whole, the social origins of university teachers have a very clear effect on the type of school they attended (Table 7.29). Almost half of the children of professional parents went to public schools, and one third to grammar schools. At the other extreme, three quarters of our respondents with fathers in semi- or unskilled jobs come from a grammar school background, and only 1% from a public school.

The effect of differential recruitment to these types of school should be obvious. The various schools cater to groups of pupils with relatively homogeneous social backgrounds, and might therefore be expected to reinforce the political views of the dominant social group. (Of course the three types of school from which most of our sample come, public, direct-grant, and grammar, are all dominated by the broad middle class: but the public schools, particularly the most academically successful ones, contain high proportions of upper and upper-middle class children, while the grammar schools have a substantial representation of working-class children.) Moreover, many public schools in their teaching and in other ways explicitly foster fairly conservative and Right-wing ideologies. We should expect to find a clear relation between type of school attended and the political party supported by the adult.

We see from Table 7.30 (below) that there is indeed a relation between party support and secondary schooling. Half of the ex-public school boys in our sample support the Conservative party, and one quarter Labour. At the other extreme, of former pupils of modern and technical schools, half are Labour supporters, and one quarter Conservative. In between, the direct-grant and grammar schools can be grouped somewhat nearer the other state schools

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(23a) Some indeterminate proportion of this 13% was educated outside of Great Britain (6% took university degrees abroad).

Table 7.30 Party Support, by Type of School Attended (per cent)

Party	School Public	 Direct-Grant	 Grammar	 Other
Conservative	49	31	33	26
Labour	26	39	45	51
Liberal	18	19	13	12
Other	1	0	2	1
None	7	11	8	11
Totals	(274)	(128)	(721)	(161)

than the independent public schools. The difference between fee-paying and non-fee-paying schools seems to be the most crucial.

Table 7.31 shows the relation between secondary schooling and position in the political spectrum.

Table 7.31 Political Position by Secondary Schooling (per cent)

Political Position	School Public	 Direct-Grant	 Grammar	 Other
Far Left	4	4	5	7
	} 41	} 57	} 56	} 58
Moderate Left	37	53	51	51
Center	34	24	27	24
Right	25	20	18	18
Totals	(281)	(138)	(744)	(174)

The differences here are somewhat smaller: 41% of the public-school educated teachers place themselves on the Left, compared with 58% of those who attended modern or technical schools. Moreover, there is no real difference among the different types of state-supported schools. Even more clearly here it is the difference between fee-paying and free schools that is the crucial factor.[23b]

We have already seen (above, Table 7.16, p. 16) that social origin has a more powerful effect on party support than on political position. Thus the differences in party support that we found between free and fee-paying schools may reflect the difference in party support of teachers from different social origins. In other words, the school may be an important intervening variable which by its class recruitment tends to confirm the effect of social origin: but it may not have much power to alter the party allegiance, for instance, of an upper-middle class boy in a grammar school. We can test the relative importance of social origin and schooling by examining their combined effect on party support (Table 7.32):

Table 7.32 Party Support by Secondary Schooling and Father's Occupation (per cent)

	Non-Manual				Manual			
	School				School			
Party	Public	Direct Grant	Grammar	Other	Public	Direct Grant	Grammar	Other
Conservative	51	32	39	29	34	29	27	19
Labour	24	39	37	43	37	40	53	66
Liberal	17	18	12	14	23	19	13	8
Other	1	0	2	1	0	0	1	0
None	7	11	9	13	6	12	7	7
Totals	(231)	(74)	(360)	(98)	(35)	(52)	(348)	(59)

It turns out that though the effect of social origins is not much diminished by controlling for schooling, yet even within the same broad classes of origin the child's school has an important effect on party support. In other

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(23b) It may be that the differences that we found in party support among the different state-supported schools (Table 7.30) are not in fact the result of schooling but rather of the differential recruitment that we saw in Table 7.29.

words, both the family and the school play independent parts in influencing future party allegiances. Thus a child sent to the type of school to which others of his class background tend to go has his family's political beliefs strongly reinforced, and is more likely than others to vote according to his class background. The difference is especially strong in the case of manual workers' children in Table 7.32 (though this may be partly accounted for by internal variation between higher and lower strata within the group of manual workers). As far as actual party support is concerned, both school and family are important. When we turn to distributions of political dispositions (Table 7.33), however, the effect of social origin, which was never very strong (see Table 7.15, p. 15), is further diminished. There is still some tendency for the children of non-manual workers to place themselves on the Center or Right, but it is a difference of the order of 9% (in the grammar schools and public schools) or at most 14% (direct-grant schools). Religious background is still the most important single factor that we have found in determining political position (though not party support).

Table 7.33 Political Position by Secondary Schooling and Father's Occupation (per cent)

	Father's Occupation							
	Non-Manual				Manual			
	School				School			
Political Position	Public	Direct Grant	Grammar	Other	Public	Direct Grant	Grammar	Other
Left	40	50	51	58	50	64	60	61
Center	34	30	29	24	28	16	26	21
Right	25	20	20	19	22	20	14	18
Totals	(236)	(80)	(369)	(106)	(36)	(56)	(361)	(62)

2. Higher education

One of the themes that has run through this study has been the idea that even in a highly selective university system like that in Great Britain there are considerable variations in the character or climate of the different universities. Some of the differences in internal character stem from well-known factors such as the prestige, academic and social, of the institutions, or from their recruitment of students, or from their very different size and age. We have seen some of the results of these climates in our discussions of research and teaching orientations (Chapters IV & V) and of attitudes to departmental structure and administration (Chapter VI). We shall be looking later, when we come to discuss the distribution of political views among university teachers within the system, to see whether the groups of universities seem to have different political climates in terms of the political views of their staff. But at this stage we shall look at the universities at which our teachers did their undergraduate work, to see whether these seem to have affected their political views.

As with secondary schools, one possible source of variation is the social composition of the student body. It has been shown, especially by the Franks Commission in the case of Oxford, that students' application to, and selection by universities may be affected by their educational background; there are good reasons to believe that the universities therefore vary quite widely in the social origins of their students.(24) We examined our sample of teachers to see whether there was any relation between their background and the type of university at which they took their first degrees. The results are shown in Table 7.34.

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(24) University of Oxford; Report of Commission of Inquiry, Oxford University Press, 1966: Vol. I, pars., 144-156. See also Robbins Report, Appendix II(B), Part I, Table 11, p. 9: In 1961 17% of undergraduates of universities in England and Wales other than Oxford and Cambridge came from independent schools, and 70% from maintained schools. In the same year figures for Oxford were roughly 50% from independent schools and 33% from maintained schools (estimated from Oxford Univ. Commission Report, Table D, p. 72). Robbins also found (Appendix II(B), Annex (C) that in 1955 the percentage of entrants to universities whose fathers were in manual occupations was 9% at Cambridge, 13% at Oxford, 21% at London, and 31% at other English universities.

Table 7.34 University Group of First Degree, by Father's Occupation (per cent)

	Father's Occupation					
Group	Professional	Intermediate	Skilled	Semiskilled		Unskilled
Oxbridge	39	33	22	14	11	0
London	15	17	23	14	15	20
Major Redbrick	15	17	25	24	25	27
Minor Redbrick	3	3	3	7	6	0
Wales	3	3	6	14	11	0
Scotland	14	14	12	22	21	20
Overseas	7	7	3	1	3	13
None	5	6	6	5	8	20
Totals	(274)	(554)	(446)	(74)	(89)	(15)

It is quite clear from this table that the children of fathers in the upper occupational groups are much more likely to have been educated at Oxford or Cambridge. Roughly similar proportions of students from all backgrounds were educated at London, while disproportionately large numbers of lower class students were educated at redbrick and Scottish universities.(24a)

On the basis of these findings we might expect that those university teachers who did their undergraduate work at Oxford would turn out to be the most Conservative, and that the rest would not vary very much. But since here we are not so much interested in describing the characteristics of those educated at different places, as in discovering what effect their education had, we shall look (in Table 7.35) at the different university groups, controlling for social origin at the same time. Otherwise, since we

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(24a)(See next page.)

(24a)
We also percentaged this table the other way, to show the variations in in class origins of academic men from different university groups. (The table is printed in the Appendix, as Table 7.55.) We found that men educated at universities abroad came from the highest social origins: four fifths of their fathers held non-manual occupations. Those educated at Oxbridge came closest to them; here the percentage from non-manual backgrounds was 73%. After these came Scotland, the minor redbricks, London, and the major redbricks, in that order, with percentages from non-manual families ranging between 61% and 50%. Of those from Wales, two fifths (42%) came from non-manual backgrounds. Thus, as is suggested by Table 7.34, there are quite sharp differences in social origins of men who took their first degrees at different universities.

know that social origin is a powerful factor in affecting political views, our findings might be contaminated by the very different backgrounds of students from one group to the next. (See next page for Table 7.35.)

Surprisingly, however, in view of our expectations, we find that for both groups, non-manual and manual, Oxbridge-educated men as a group are slightly to the Left in their party support.(25) In the non-manual group, those from Oxford and Cambridge support the Conservative party least of all: and in the manual group, they support Labour most. But there are, in fact, no very large differences between the university groups, with one exception: those from Scotland are much more Conservative. This is the case not only in the non-manual group, where only Scotland produces more than 50% support for the Conservatives, but also for those of working class background, where they are the only group to show a plurality for the Conservatives.

This is a very interesting finding. It seems clear from other studies (discussed p. 17ff) that university education does have some effect on political dispositions, even if it is simply a liberating one. It was clear from our examination of the effects of secondary schooling that schools with a more working-class student body tend to produce more Labour supporters, even among students with the same social background. The universities, however, which also vary widely in the background of their students, do not seem to develop different political climates as a result--at least not so as to affect greatly those of their graduates who become university teachers. In other words, the social hierarchy of universities does not seem to have the same politically divisive effect as does the hierarchy of secondary schools. These remarks do not apply to the Scottish universities: but they are exceptions, since they are much more local in character than any of the

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(25) The variations on the political spectrum are similar, but much smaller: see Table 7.36 on the following page.

Table 7.35 Party Support, by University Group of First Degree and Father's Occupation (per cent)

	Father's Occupation											
	Non-Manual						Manual					
Party	Ox-bridge	London	Major Red-brick	Minor Redbrick & Wales	Scot-land	None	Ox-bridge	London	Major Red-brick	Minor Redbrick & Wales	Scot-land	None
Conservative	36	37	41	39	52	44	25	27	26	16	41	24
Labour	37	40	36	33	23	28	58	55	53	57	33	55
Liberal	17	15	12	17	13	16	10	14	11	24	18	7
Other/None	10	8	11	11	10	12	7	5	9	4	8	14
Totals	(270)	(120)	(126)	(46)	(109)	(43)	(98)	(110)	(129)	(51)	(73)	(29)

Table 7.36 Political Spectrum, by University Group of First Degree and Father's Occupation (per cent)

	Father's Occupation											
	Non-Manual						Manual					
Political Position	Ox-bridge	London	Major Red-brick	Minor Redbrick & Wales	Scot-land	None	Ox-bridge	London	Major Red-brick	Minor Redbrick & Wales	Scot-land	None
Far Left	5 }51	5 }52	5 }52	2 }46	2 }41	5 }46	6 }66	4 }64	3 }60	7 }58	4 }42	7 }57
Left	46	47	47	44	39	41	60	60	57	51	38	50
Center	31	27	28	30	32	30	19	25	22	31	34	33
Right	18	21	19	24	27	25	15	12	18	11	23	10
Totals	(277)	(129)	(129)	(50)	(112)	(44)	(108)	(113)	(132)	(55)	(73)	(30)

other British groups. Although many English students can be found in Scottish universities, and many Scots in England, there is a much more direct channel from Scottish schools to Scottish universities than is to be found in any other geographical area, even in Wales. We saw in the section on religious background that teachers brought up in the Church of Scotland were relatively conservative in their political views. Most of these will have been educated at universities in Scotland,(26) and the homogeneity of these universities in this respect, despite their fairly wide social recruitment, probably does much to reinforce the political attitudes learnt in the family and schools.(27)

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(26) Actually, two thirds of the men in our sample who were from Church of Scotland backgrounds took their first degree in a Scottish university.

(27) Indeed, it is really only those Church of Scotland men who remained in Scotland for their first degree who are conspicuously conservative, as we see below:

Table 7.37 Party Preference by Place of First Degree (per cent)

	Church of Scotland Origins Place of First Degree			Whole Sample (Table 7.1)
Party	Oxbridge, London	Scotland	All Others	
Conservative	36	51	33	35
Labour	31	26	46	41
Liberal	24	17	21	14
Other/None	10	6	0	9
N	(42)	(126)	(24)	(1306)

While we are looking at the possible effects of university education on political views, it is worth considering two other aspects of this education--namely, the class of degree gained, and whether the respondent took any higher degrees. It is possible that the quality of academic performance may have some bearing on the impact of a university education on political views. For example, those who gain better degrees may be somehow more open-minded to change in their views, and those who stay on to study for higher degrees may be more affected by longer exposure to student life. But the differences by class of degree are not large, though there is some evidence that those who did better as undergraduates tend towards the Left. When we looked at higher degrees, similarly, there was no appreciable difference between those who took a Ph.D. as compared with Master's or Bachelor's level degrees.(28)

3. Subject taught

It might be thought that the question of the relationship of the area of study of our university teachers would fall better in the third section of this chapter--that dealing with the distribution of political views within the university system. And certainly it would be possible to treat this as a merely descriptive question: where are particular political views, Right or Left, to be found concentrated? (This is how we shall treat rank, for example.) But it is also possible to regard the relationship as at least partly causal, though the direction of causality may not be entirely clear. The choice of a particular subject implies the formation of views about the nature of the world and further study continues to shape them. This is particularly clear, perhaps, in the case of social science. Although most social scientists would claim--justifiably--that their research after they have chosen a problem is objective and "value-free," yet their studies compel them to confront the social and political dilemmas of their world. And in Great Britain, especially, the applied social sciences have roots in the reformist traditions of political radicalism.(29)

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(28) See (Appendix) Tables 7.51-54.

The connections between subject studied and political dispositions are complex, a product both of selective recruitment of men of different political sentiments to different subjects, and of the more subtle continuing intellectual force of the subject itself. Whatever the process which links them (and we will want to return to that question), we look, first, in this section at the dispositions of the men in each subject; we shall then show how recruitment to subjects varies by social origins; and, lastly, we shall explore whether the choice of subject turns out to override university teachers' social origins in its effect on political views.

The following tables (on the next page) show party support and position on the political spectrum by subject taught. In Table 7.38 we see that the differences between subjects are, in fact, quite sharp. Social scientists are well to the Left of all the others: 70% of them describe themselves as Far Left or Moderate Left. At the other extreme come the technologists and teachers of medicine, of whom 44 or 45% are on the Left, and roughly a quarter consider themselves Right-wing. Similarly, in Table 7.39 we see that two thirds of the social scientists are Labour party supporters, compared with about half the arts teachers, one third of the natural and applied scientists, and one quarter of the teachers of medicine. Before we

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(29) The social sciences also have strong *conservative* roots--though stronger on the Continent than in England. See H. Stuart Hughes, *Consciousness and Society: The Reorientation of European Social Thought, 1890-1930* (New York: Knopf, 1958); and Leon Bramson, *The Political Context of Sociology*, Princeton: Princeton University Press, 1961. Lipset, in *Political Man* (op. cit.) pp. 336-8, gives evidence for the Leftism of American social scientists.

Tables 7.38 and 7.39 Political Position and Party Support by Subject Taught (per cent)

Subject

7.38

Political Position	Arts	Social Science	Natural Science	Technology	Medicine
Far Left	5	8	4	2	3
	58	70	49	45	44
Moderate Left	53	62	45	43	41
Center	25	21	31	30	33
Right	17	8	20	26	23
Totals	(350)	(218)	(397)	(172)	(136)

7.39

Party	Arts	Social Science	Natural Science	Technology	Medicine
Conservative	29	18	36	42	55
Labour	47	66	36	32	26
Liberal	15	8	17	18	8
Other/None	9	7	12	8	11
Totals	(329)	(205)	(308)	(170)	(133)

discuss the possible reasons for this diversity we should perhaps consider the question of recruitment to the subjects.

Table 7.40 Subject Taught by Father's Occupation (per cent)

Father's Occupation

Subject	Professional	Intermediate	Skilled	Semi-Skilled	Unskilled
Arts	30	26	28	26	21
Social Science	20	16	16	20	14
Natural Science	26	30	35	36	50
Technology	9	13	16	13	14
Medicine	16	14	5	6	0
Totals	(254)	(519)	(419)	(70)	(14)

We find that, as might be expected, social origin affects the choice of subject. The children of professional men who enter academic life are most likely to choose arts subjects: those from all the other categories choose natural science more often than any other area, but the preponderance of natural science increases the lower the occupational group, while choices of arts and medicine decrease. The smaller proportion in the arts may be seen even more clearly in Table 7.41 where we see the distribution of social origins within the several major fields of study. These differences may be partly due to different cultural values between social classes; but it should also be remembered that the traditional strength of the public schools lies in the arts subjects, and the type of school attended probably has a powerful effect on the choice of subject. In any event, we have seen that social origins are related to subject choice, so that it becomes necessary to introduce social origins into Tables 7.38 and 7.39. This is done in Tables 7.42 and 7.43 (see next page).

Table 7.41 Father's Occupation by Subject Taught (per cent)

	Subject				
Father's Occupation	Arts	Social Sciences	Natural Sciences	Technology	Medicine
Professional	22	23	16	13	29
Intermediate	39	39	39	41	52
Skilled	33	31	37	40	16
Semi-skilled	5	6	6	5	3
Unskilled	1	1	2	1	0
Totals	(350)	(217)	(400)	(171)	(138)

When we control for the effects of social origin we find that the difference between the subjects is as great as before. Among teachers of middle class origins, in Table 7.42, 68% of social scientists describe themselves as

Tables 7.42 & 7.43 Party Support and Political Position by Subject and Father's Occupation (per cent)

7.42 Political Position	Non-Manual					Manual				
	Subject					Subject				
	Arts	Social Science	Natural Science	Tech-nology	Medi-cine	Arts	Social Science	Natural Science	Tech-nology	Medi-cine
Far Left	6 } 53	6 } 68	5 } 44	0 } 44	3 } 42	4 } 66	11 } 75	3 } 55	4 } 48	4 } 58
Left	47	62	39	44	39	62	64	52	44	54
Center	28	23	33	27	34	19	17	30	33	29
Right	19	9	24	29	24	14	8	15	19	12
Totals	(205)	(129)	(215)	(89)	(108)	(135)	(83)	(174)	(79)	(24)

7.43 Party	Arts	Social Science	Natural Science	Tech-nology	Medi-cine	Arts	Social Science	Natural Science	Tech-nology	Medi-cine
Conservative	31	22	42	47	57	23	12	26	32	43
Labour	42	60	27	25	24	56	75	47	43	35
Liberal	16	8	17	21	8	14	9	17	14	9
Other/None	11	10	15	7	10	7	4	9	10	13
Totals	(197)	(119)	(206)	(89)	(107)	(124)	(81)	(167)	(77)	(23)

on the Left, 53% of arts teachers, 44% in natural science and technology, and 42% in medicine. Among men from working class backgrounds, the range is from 75% (social science) to 48% (technology). When we look at Table 7.43 (party support), we find that support for Labour ranges from 75% among social scientists from manual-worker families to 24% (medicine, non-manual). The order is much the same as in Table 7.42. We have already suggested that one possible explanation for these differences is the different view of the nature of the world required by the subject-matter and methods of study. In the case of social scientists it is certainly true that there is a powerful pull towards the Left. In addition, we may be seeing here another factor--the influence of differing reference groups. The teacher of medicine and the teacher of technology are alike in that they can see themselves as members not only of an academic community but also of a profession whose members outside the university are predominantly conservative. To some extent this is true of natural scientists also, though perhaps the "purer" the science and the more "basic" the research the more will natural scientists take as their model academic men rather than, say, researchers employed by industry. For the most part, those in arts and social science, on the other hand, have no larger profession to which they are even loosely attached. Those whom they teach, if they wish to continue practising the subjects in which they took their degrees, are compelled to remain in the universities (or perhaps schoolteaching). For this reason those in these two subjects are able to be more genuinely "free-floating" in Mannheim's sense, while scientists, natural and applied, and teachers of medicine are in constant communication with members of the corresponding professions, and will naturally take on to some extent the values held by members of these professions who, as we saw earlier (p. 3ff), tend to be further to the Right.

But for the moment this must all remain largely speculative. We have seen that differences in the political sentiments of men in different subjects are not explained by differences in social recruitment to those subjects. But the possibility remains that these differences among subjects reflect other patterns of selective recruitment to the several disciplines, rather than the influences on political sentiments of the differing views of the world that arise out of differing subjects and methods of study.

Let us return now to the question of how political sentiments are distributed within the university system. We have already begun this by seeing the quite uneven distribution of political sentiments among the several subject areas. Are these sentiments and loyalties also differently distributed among the several major categories of universities?

III. The Distribution of Political Sentiments in the University System

A. University group

In Section B-2 of Part II of this chapter, we discussed the possibility of universities developing characteristic and different political climates, just as their normative climates vary in other respects, as for example, with respect to research and teaching. At that point we did not touch on the question of the political climate specifically among teachers, but simply conjectured that some atmosphere might exist in universities which would affect the political preferences of students, whether it arose basically among the students themselves or was shaped by their teachers. We found that except for those university teachers who had taken their first degree in Scotland, there was nothing to suggest that such variations did exist; or if they did, they did not seen to affect the students. It is now appropriate, however, to look directly at our sample as they are presently distributed in the system as teachers. Table 7.44 shows positions on the political spectrum for each university group. Once again, Scotland stands out as an exception: one quarter of the teachers in Scottish universities describe themselves as on the Right of the spectrum, and 45% on the Left. Among the rest, however, the variation is very small; the proportions on the Left range from 51% to 57%: Oxford has 23% on the Right, but the others vary from 16% to 19%. As far as abstracted political views are concerned, only Scotland is significantly dissimilar from the rest.

Table 7.44 Political Position by Present University Group (per cent)

	Group											
Political Position	Oxbridge		London		Major Redbrick		Minor Redbrick		Wales		Scotland	
Far Left	6	52	5	51	4	56	6	57	6	56	3	45
Mod. Left	46		46		52		51		50		42	
Center	25		30		28		25		28		30	
Right	23		19		16		18		16		25	
Totals	(155)		(235)		(454)		(141)		(116)		(244)	

Table 7.45 shows the distribution of party support.

Table 7.45 Party Support by Present University Group (per cent)

	Group					
Party	Oxbridge	London	Major Redbrick	Minor Redbrick	Wales	Scotland
Conservative	38	40	32	29	28	43
Labour	40	41	41	53	46	31
Liberal	15	12	15	12	16	14
Other/None	7	6	12	6	10	12
Totals	(143)	(225)	(444)	(132)	(111)	(233)

Here the variation is somewhat greater. Oxbridge and London fall roughly in the middle, with fairly equal support of about two fifths for each of the main parties. The major redbrick universities also show two fifths for Labour, but only one third support the Conservatives, and there is a somewhat larger proportion favoring another party or uncommitted. The small redbricks and Wales favor Labour quite substantially; around half of the teachers in these groups are Labour supporters, and under 30% Conservatives. Scotland, on the other hand, shows a 12% plurality in favor of the Conservative party over Labour, compared with 24% for Labour over Conservatives in the small redbricks. It seems fair to say that among the teachers themselves there are significant variations of political climate between the groups of universities.

This makes our earlier discovery that the first-degree university has very little effect all the more surprising. We find that not only are the student bodies different, at least in their social composition, but the teachers too (now, at any rate) differ in their political views as well. Moreover, except (once again) for Scotland, the two factors run parallel: the universities with a more Labour faculty are more favored by lower-class students, whereas London and Oxbridge, where party support is more evenly balanced, are attended by all classes equally (London) or more by the higher classes (Oxbridge). (See Table 7.34.) At this point, therefore, it seems worth re-examining both these findings. In Table 7.46 we look at party support taking both the respondent's present university and his undergraduate institution into account simultaneously. If it turns out that teachers now at particular institutions have a characteristic political posture regardless of where they took their undergraduate degrees, we must conclude that some process of self-selection to particular university groups is at work, even though this in its turn does not seem to affect the students educated at these places. In Table 7.46 we show, for the sake of clarity, only the percentage of the faculty who support the Labour party.

Table 7.46 Party Support: % of Labour Supporters by Place of First Degree and Present Place

	Place of First Degree				
Present Place	Oxbridge	London	Major Redbrick	Minor Redbrick & Wales	Scotland
Oxbridge	42 (106)	x (9)	x (8)	x (2)	x (5)
London	44 (57)	44 (81)	50 (24)	x (7)	x (13)
Major Redbrick	38 (107)	46 (67)	42 (161)	36 (25)	33 (36)
Minor Redbrick	54 (37)	58 (31)	52 (31)	56 (16)	x (6)
Wales	44 (23)	50 (20)	x (14)	49 (41)	x (7)
Scotland	43 (44)	39 (26)	39 (18)	x (5)	24 (111)

x Cells containing too few cases to percentage usefully.

Looking first at the whole table, we find that the lowest percentage of Labour supporters, as we might expect, is provided by men both educated and now teaching in the Scottish universities. Here the percentage is just under one quarter. The next lowest proportion comes also from those educated in Scotland but teaching elsewhere. At the other extreme, the highest proportions are found among those now teaching in the small redbrick universities, wherever they did their undergraduate work. Apart from this, however, whether we compare by row of the table (to test the effect of undergraduate education within present groups) or by column (to see if, after education in the same type of university, men of different views choose different places to teach) there are no clear patterns to be discerned. In other words, a Scottish education produces fewer Labour supporters; the small redbrick universities have more Labour supporters on their staff: otherwise there are no broad statements to be made about the political climates of the various groups.

B. University rank

In our search for concentrations of "Left" and "Right" political views within the universities, we very naturally look to variations by academic rank. There are several reasons for suspecting that the higher ranks might on average be more conservative. For one thing, men in higher ranks tend to be older. In any political system the old will tend to be more conservative then their juniors, partly no doubt as a result of increasing wisdom and experience, which lead them to hesitate to exchange the known for the unknown: but also because in any society that is changing, one generation's innovations will be the next generation's status quo ante.(30) For example, support for state supported grammar schools was, not so very long ago, a radical position held by good Socialists; today it is part of a defense of a selective education system and very much a Conservative position.

But there is another quality of age which bears on political views: it tends to bring more authority and responsibility, and with them a larger commitment to the existing state of affairs. Increased rank in particular brings precisely this. We have already seen, in Chapter VI, that professors were far more likely than those at lower grades to approve of the existing degree of accessibility and the existing functions of professorship. But the effect probably spreads wider than simply over views of one's own job. Men who have gained recognition and status are likely to approve of institutions and arrangements that have recognized and rewarded their merits. Successful men make bad revolutionaries; we may also suspect that fewer of them are likely to be ardent reformers.

We give below the distribution of different ranks on party preference and the political spectrum.

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(30) The variation in political dispositions with age is shown in note (10) to this chapter.

Table 7.47 Party Support by Academic Rank (per cent)

Party	Professor	Reader	Sen. Lecturer	Lecturer	Others
			Rank		
Conservative	38	44	46	31	32
Labour	36	36	34	45	45
Liberal	15	12	12	16	9
Other	2	1	1	1	2
None	9	8	6	8	13
Totals	(178)	(121)	(204)	(687)	(110)

Table 7.48 Political Position by Academic Rank (per cent)

Political Position	Professor	Reader	Sen. Lecturer	Lecturer	Others
			Rank		
Far Left	1	6	4	5	8
	45	49	46	57	57
Mod. Left	44	43	42	52	49
Center	35	30	30	25	25
Right	21	20	24	18	17
Totals	(190)	(128)	(211)	(718)	(110)

The results are in the direction we would predict: the senior ranks are somewhat further to the right. But what is surprising in Tables 7.47 and 7.48 is not the somewhat greater conservatism of Professors as compared with the lower ranks, but that the differences are as small as they are.(31) Although the power, pay and prestige of Professors is very much higher than that of Lecturers, for example, we do not find those large differences reflected in similarly large differences in party preferences or in their political dispositions. Differences are in the order of 10%, much smaller differences than we have seen associated with class and religious origins, or a man's academic subject. It would be interesting to know whether this degree of similarity in the distribution of political loyalties and sentiments exist at different levels of (white collar) rank in other institutions--say, between junior and senior executives in industry, or junior and senior civil servants or army officers.

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(31) The differences in party preference by rank are somewhat sharper, with support for the two main parties ranging from a 12% plurality for the Conservatives among the Senior Lecturers to 14% for Labour among the regular Lecturers. In terms of support for Labour there is a fairly abrupt divide between the three senior grades, in all of which a little over one third support Labour, and the Lecturers and junior posts, in which nearly one half (45%) are Labour supporters. In this table, however, Readers as well as Senior Lecturers are to the right of the Professors, who are almost evenly balanced between the two main parties.

Rank carries with it the presumption of greater age, as well as authority and prestige; and age, in turn, may affect political views in different ways than the responsibility and power of rank. Let us look briefly at the relation of rank to political preference, while controlling for variations in age among the several ranks. (See Table 7.49 on next page.) Controlling for age further reduces the political differences by rank. Among men under 40 the young Professors are disproportionately Left and the Senior Lecturers notably Conservative; among men over 40, differences among the ranks are not very large.

Age, authority and rank clearly do have a bearing on some kinds of politics--specifically, as we have seen, on university politics. But positions on the national political spectrum are affected by too many other, stronger forces--for example, class origins and religion--for the bearing of academic rank to have much independent effect. Moreover, as we have had occasion to mention earlier, the major parties in Britain are both hospitable to a wide spectrum of sentiment; Labour has very strong conservative tendencies, while the Conservative leadership, especially in education and university questions, is arguably as "progressive" as the Labour Party. There may well be sharper differences between senior and junior ranks on specific social and political issues than emerges from our very general questions regarding political position and party support.

Table 7.49 Party Preference by Rank and Age (per cent)

Party	35-39				40-44				45+			
	Professor	Reader	Senior Lecturer	Lecturer	Professor	Reader	Senior Lecturer	Lecturer	Professor	Reader	Senior Lecturer	Lecturer
Conservative	21	35	53	32	41	54	43	36	40	44	43	36
Labour	54	39	35	42	31	39	29	39	34	33	36	44
Liberal	12	10	6	16	16	7	12	20	15	13	16	15
Other/None	12	16	6	10	9	0	17	5	11	10	4	5
Totals	(24)	(31)	(51)	(166)	(32)	(28)	(42)	(76)	(122)	(61)	(91)	(85)

IV. Correlates of Political Preference

In this chapter and in parts of earlier chapters we have explored the relationship of political loyalties and sentiments of academic men to other attitudes and behaviors. In this section we want to summarize these findings, bringing them together so that we can see more clearly which areas of the academic man's life and thought are related strongly and which weakly or not at all to broader political values and attachments. We will present these comparisons in clusters around a central theme or topic, in roughly decreasingly strong relationship to political sentiments (Table 7.50).

We have chosen to concentrate on relationship to the political spectrum, not so much because we believe this general measure to be in any sense prior to party support (although being more generalized and less bound to the contemporary characteristics of British political parties it is less susceptible to idiosyncratic interpretations), but for a more practical reason: namely, that the two extremes on the political spectrum between which we shall be giving differences are farther apart than are the two main political parties; thus the differences in attitudes stand out more clearly. It should be born in mind that the large majority of our sample falls somewhere between the extremes of "Far Left" and "Right." (For comparison, differences by major party support are also given.)(32)

On the left of the table we show the particular response or combination of responses to a question; in the column marked Δ (spectrum) we show the difference between the percentage of those on the Far Left and that of those on the Right who gave this response. Where the percentage on the Far Left is

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(32) On the spectrum, 5% of the sample fall in the Far Left category, and 19% in the Right. (Table 7.3.) Thus three quarters of the sample are between these extremes. Party Support, however, covers 76% (35% Conservative, 41% Labour) (Table 7.1): thus only one quarter is not included.

Table 7.50 Percentage Differences between "Far Left" and "Right" (Labour and Conservative) on Selected Attitudes

	(spectrum)*	averages^x	(party)+
A. The Secondary Schools: Attitudes and Behavior			
1. Q.49(x) "The tripartite system of grammar, modern and technical schools should be supplanted by a system of comprehensive schools"--% agree strongly or with reservations.	66		(46)
2. & 3. Q.63 (If R. has children of secondary school age or older) "What kinds of school do they or did they attend"--% attending private school:			
2. Sons	-50	40.0	(-34)
3. Daughters	-30		(-22)
B. Attitudes toward the Expansion of the University System and the Non-University Sector of Higher Education			
1. Q.5 "Which of the following opinions concerning the number of students in the university system comes closest to your own opinion?"--% answering "We should double the numbers or more in the next decade"	48	41.7	(20)
2. Q. 10 "Which of these proportions of the relevant age group would you like to see entering universities and other full-time institutions in Britain?"--% answering "30% or more"	43		(11)
3. Q. 11 "If the number of students doubled in the next decade with the same staff-student ratio, what would you expect to be the effect on the quality of graduates in your subject from your university?"--% answering "marked" or "some" deterioration	-42		(-15)
4. Q. 8 "Do you think that the number of new places in the university system in your subject should be expanded in the next decade?"--% answering "Yes, over 75%"	39		(14)
5. Q. 49(xii) "The essential quality of British university life should be preserved by expanding the non-university forms of higher education rather than the universities"--% agree strongly or with reservations	-43		(-19)
6. Q. 47 "Do you think that CATs ought to be given university status?"--% answering "Yes"	35		(22)
7. Q. 6 "Do you feel that the expansion that has already taken place over the past decade has affected the quality of students admitted to your university in your subject?"--% answering "The quality of my students has risen in recent years"	24	24.7	(12)
8. Q. 12 "Do you think your present university as it is now organised is..."--% answering "Too small"	28		(14)
9. Q. 13 "Do you think your present department is..."--% answering "Too small"	22		(8)

* = % among Far Left (N = approx. 65) minus % among Right (N = approx. 260)

+ = % among Labour supporters (N = approx. 535) minus % among Conservative supporters (N = approx. 460)

x sign ignored

(continued)

Table 7.50 (continued)

	Δ (spectrum)	averages^{x}	Δ (party)
C. Attitudes regarding the Distribution of Power and Status in University Departments			
1. Q.49(ix) "Most British university departments would be better run by the method of circulating chairmanship than by a permanent Head of Department"--% agree strongly or with reservations	36	33.7	(20)
2. Q.49(viii) "A serious disadvantage of redbrick universities is that all too often they are run by a professorial oligarchy"--% agree strongly	26		(10)
3. Index of attitudes to distribution of power (from 1 & 2 above)--% "democrats"	39		(18)
4. Q.49(v) "A university department with more than eight members of staff should have more than one member of professorial rank"--% agree strongly	21	16.3	(6)
5. Q.49(iv) "A professorship ought to be part of the normal expectation of an academic career and not a special attainment of a minority of university teachers"--% agree strongly or with reservations	7		(4)
6. Index of attitudes to distribution of status (from 4 & 5 above)--% "elitists"	-21		(-9)
D. Satisfaction with Own University, and Institutional Mobility, Past and Future			
1. Q.28 "Do you anticipate that you will be applying for a post at another university in the next three years?"--% answering "Almost certainly will not"	-31		(-11)
2. Q.24 "Do you expect to remain at your present university until you retire?"--% answering "Probably not" or "Definitely not"	23	16.5	(8)
3. Q.25 "In general, how do you feel about your present university?"--% answering "It is a very good place for me"	-20		(-14)
4. Q.27 "Have you applied for a post (including your present post) within the last year?"--% answering "Yes"	15		(4)
5. (Derived from Robbins U.T. survey, Col. 60) Number of different universities in which R. has taken degrees or held posts--% one only	-14		(-8)
6. (Derived from Robbins U.T. survey, Col. 61) Number of different universities in which R. has held posts--% one only	-13		(-3)
7. Q.26 "Is there another British university in which you would prefer to hold a post roughly equivalent to the one you hold here?"--% answering "Yes"	11		(6)
8. Q.32(i) "Since taking a university post in the United Kingdom, have you ever seriously considered accepting a permanent post in a university abroad?"--% answering "Yes"	11		(4)
9. Q.31 "Do you like the city or town in which your university is located?"--% answering "Yes"	-11		(-4)

x sign ignored

(continued)

Table 7.50 (continued)

	$(\widehat{\text{spectrum}})$ averages^{x}		$(\widehat{\text{party}})$ averages^{x}
E. Views regarding the Character, Content, and Curriculum of British Education			
1. Q.49(iii) "Valid criticism of the English universities is that they over-emphasise the single sujbect honours degree"--% agree, strongly or with reservations	18	16.5	(7)
2. Q.49(xi) "A serious shortcoming of the present system of secondary education is premature specialisation"--% agree strongly	15		(7)
3. Q.49(ii) "University education in Britain puts too little emphasis on the training of experts and too much on the education of widely cultivated men"--% agree, strongly or with reservations	3		(-1)
(4.-9.) Q.50 "The general balance of university studies in Britain is such that the following faculties are given insufficient support"--% marking:			
4. Pure Science	3	3.2	(-4)
5. Arts	-2		(4)
6. Law	3		(-5)
7. Medicine	-5		(-7)
8. Technology	3		(-3)
9. Social Sciences	35		(26)
F. Attitudes toward Academic Life, and to Research and Administration			
1. Q.49(vii) "Promotion in academic life is too dependent on published work and too little on devotion to teaching"--% agree, strongly or with reservations	-13	11.4	(0)
(2.-5.) Q.18 "What are the major handicaps that you experience in carrying on research?"--% marking:			
2. "Insufficient time because of teaching commitments"	14		(5)
3. "Insufficient time because of commitments other than teaching"	-14		(0)
4. "Insufficiencies in library"	13		(8)
5. "Unresponsiveness of your departmental or college administration to your research needs"	7		(2)
6. Q.49(xiii) "In order to do full justice to his position, an academic man has to subordinate all aspects of his life to his work"--% agree, strongly or with reservations	-11		(-12)
(7.-8.) Q.45 "How much do you enjoy each of the following of your present activities?"			
7. "Research"--% answering "very much"	8		(2)
8. "Administration and policy-making in the University (College) and Department"-- % answering "very little"	17		(4)
9. Q.17 "Do your own interests lie primarily in teaching or research?"--% answering "very heavily in research"	6		(1)

x sign ignored

(continued)

Table 7.50 (continued)

G. Religious and Familial Patterns	△ (spectrum)	△ (party)
1. Q.58 "Do you consider yourself deeply religious, moderately religious, largely indifferent to religion, or basically opposed to religion?"--% answering "largely indifferent" or "basically opposed"	49	(23)
2. Q.57 "What is your present religious denomination?"--% answering "Church of England"	-40	(-23)
3. Q.61 "Is your wife a university graduate?"--% answering "Yes"	30	(9)
4.-5. Q.63 (If R. has children who are or have attended an institution of higher education)--% attending university		
4. Sons	13	(17)
5. Daughters	13	(4)

higher the figure given is positive, where that on the Right is higher the sign is negative. The next row of figures gives the average percentage difference between Far Left and Right for the bracketed questions. The third column, labelled △ (party), shows the percentage difference on these questions between Labour and Conservative party supporters.

A. The secondary schools: attitudes and behavior

The attitude elicited by our questionnaire which was most strongly related to general political disposition concerned the replacement of the tripartite system of secondary education by comprehensive schools. This issue, a major plank in Labour educational policy, and opposed by most (though not all) Conservative party leaders, placed the weight of a clearly articulated party issue behind the more general differences of sentiment regarding equality and privilege that separate the Left from the Right in Britain. The result is a difference of 66% between the Far Left and Right in our sample, and of 46% between Labour and Conservative supporters. These sentiments are not merely reflections of party differences, but also affect how men educate their own children: those on the Right are not only opposed to comprehensive schooling, but are much less prepared to commit their children to the state system of secondary education, regardless of how it is organized. The difference in the education of their sons is very large (50%); of their daughters, smaller though still considerable (30%). These differences are not special to academic men, but are part of the basic and continuing cleavage in British social and political life over the organization of secondary education, as between a system of elite schools (whether public or private), which reflects and helps sustain social and economic inequalities, and comprehensive state schools designed (in part) to reduce the relative importance of class origins for adult life and careers. The academic men here merely mirror this broad social cleavage in their own attitudes and behaviors, but they live with the effects of Britain's secondary educational system more closely than do most of their countrymen. It would be useful to see whether that direct experience makes their attitudes toward comprehensive schooling, or their education of their own children, any different on average from those of other professional groups, such as lawyers or civil servants, whose work is not so directly linked to the political issues of secondary education.

B. Attitudes toward the expansion of the university system and the non-university sector of higher education

Here we need only summarize findings discussed at length in chapter IV. Listing the items in descending order of difference by political sentiment (or party preference) we see first that there are very large differences on questions having to do with expansion of the university system as a whole. On questions II. B.1-6 we find differences of between 48-35% (average △ :41.7%) between the Left, strongly supporting expansion, and the Right, broadly opposing it. Items II. B.5 and 6 dealing with aspects of the non-university sector of higher education, are consistent in the greater readiness of conservatives to want to preserve the elite character of the university system both by excluding technical institutions, and by insulating the universities against expansion by using the non-university sector to absorb whatever expansion is necessary.

Where academic men are asked to make judgements of past events or present realities bearing on expansion, as in items II. B.7-9, the Left is less apprehensive of future growth, as we noted in Chapter IV, and less inclined to see their own present universities and departments as "too small." But these differences, constrained by objective realities, are smaller (average △ : 24.7%) than are the differences between Left and Right in their basic attitudes and anticipations of the future effects of expansion that we see in items II. B.1-6.

C. Attitudes regarding the distribution of power and status in university departments

Category C deals with a subject we discussed in detail in Chapter IV, the feelings of academic men toward the distribution of power and status within their own departments. As we saw there, political sentiments are quite strongly related to attitudes regarding the power of chairmen, rather less so regarding the status of the professorship. On the issue of professorial power, differences on items C. 1-3 average 33.7% between the Far Left and the Right; on the matter of professorial status, items C. 4-6, differences average 16.3%.

D. Satisfaction with own university, and institutional mobility, past and future

In Category D we group a number of items having to do with the academic man's general satisfaction with his own situation, and the facts, preferences and anticipations surrounding individual mobility between universities. There is no obvious relation of these matters to broader political sentiments; yet we find moderate but consistent differences between men on the Left and Right: the average differences on the nine items in Category D is 16.5%. Men on the Left are in general less satisfied with their present positions, and more mobile, both in fact and intention. But before we suggest that political conservatives are also more likely to be conservatives in their own careers, we would want to see whether there are marked differences in mobility between subjects and ranks, which as we know are also correlated with differences in political sentiments.

E. Views regarding the character, content and curriculum of British education

While, as we have seen, there are very marked differences between the Left and Right regarding the organization of both secondary and higher education--the Left wanting expansion and comprehensive schools, the Right defending the small elite systems--the differences between Left and Right regarding the character and curriculum of British education are much smaller. On items E. 1 and 2, the academic men on the Far Left are somewhat more likely to be critical of specialization, both in secondary and higher education (average difference on the two items: 16.5%). But there is almost no difference on what might be thought of as a conservative educational value--the education of "widely cultivated men" as opposed to "the training of experts" (item E.3). And when we look at views regarding the desirable level of support for various university subjects, we find, with one exception, almost no differences between men of the Left and Right. The exception is in their views of the social sciences, which the Left is much more likely to see as inadequately supported. We have seen that social scientists are distinctly more Left, on average, than men in other subject areas; but support for the claims of the social scientists is not confined to the Left academics who happen to be social scientists. In a sense, the social sciences have a political image and a constituency among the Left both within and outside the academic world in a way that is true of no other subject. But with that exception, the pattern is of remarkably small differences by political sentiments regarding the broad character and content (as over against the organization) of British education.

The relatively small differences here are as significant for British higher education as are the large differences on issues of university expansion and organization: the latter, in the British academic tradition, are legitimately political issues; the former are not. That fact may help account for the relatively small differences; but that they are relatively small helps to insulate these academic issues from the external forces of national politics, and thus indirectly helps preserve the academic freedom and autonomy of British education. We can imagine the result if the character and curriculum of the universities was itself an issue between Left and Right; the direct introduction of national political sentiments and loyalties into academic decision-making would severely strain the freedom of academic men to make these decisions on intellectual and academic rather than political grounds. Nevertheless, the broad consequence of this insulation of the curriculum from national political sentiments and currents is to strengthen the conservative tendencies of British education, since the consensus tends to develop around the traditional liberal (i.e., the conservative "gentlemanly") conceptions of the nature of higher education.

F. Attitudes toward academic life, and to research and administration

We have explored the distribution and sources of attitudes toward research and teaching in great detail in Chapters IV and V. These personal sentiments toward the core activities of the profession are not strongly correlated with men's broad political dispositions. Differences between Far Left and Right on various aspects of research, teaching, administration, and the bases for promotion are clustered in Category F; the average differences on these nine items are only 11.4%. Men on the Left are a little more oriented toward research, a little less inclined to subordinate all other aspects of life to their work. But politics are certainly not a major source of differences on these basic academic issues.

G. Religious and familial patterns

In category G we see marked differences between men of the Far Left and Right in their religious identifications, which we would expect, and in the higher education of their wives and children, which we would not. Men of the Far Left are much more likely to marry university graduates, and somewhat more likely to have children in university. We tend to underestimate the influence of personal experience, and that of members of one's family, on the attitudes of academic men toward academic questions; it is not quite seemly for such personal experience to be invoked in academic argument. But while the men of the Right are more likely to come from homes in which a parent was a university product, the men of the Left have more university experience in their own families. It would be interesting to explore the implications of this fact for their attitudes toward, say, university expansion.

Politics and the academic man

In these four sections we have produced a fairly thorough description of the political views of university teachers, starting by exploring their origins, in so far as they can be discovered, moving on to locate them in the system, and finally showing how they are reflected in the opinion and styles of life of our subjects. We have tried, because that is our own interest, to show that academic men do not hold the views they do as a result of some process of pure reasoning, but that their views are quite substantially the product of their environment and experience. Part of their attitudes to academic life can be understood in light of their position or location within the university system; another part corresponds in consistent ways with their political views, which we believe to have been largely formed before their entering the academic profession. But to say that academic men take positions on academic and political issues in largely predictable ways is not to condemn them. There is a strain toward consistency in the views men hold, the stronger the more reflective and intellectually responsible they are. Moreover, deciding questions "on their merits alone" is a laudable aim; but it is impossible without an idea of what constitutes merits, and these ideas rest on values whose sources are in large part prior to and outside the university. Some of these values unite British academic men: a scrupulous honesty in intellectual life, a dedication to the highest academic standards, a strong sense of responsibility to their students are among these; others divide them, and among these are conceptions of the size and functions of British higher education in the future, and the closely related question of the character of British education more generally. Our problem and method leads us to focus on the latter, but our consideration of British academic men and their institutions will be woefully distorted if we do not pay sufficient attention to the powerful cohesive and integrative forces in the society, the university, and the academic profession. But it is in the nature of integrative forces to be conservative in their consequences, while change entails and is achieved through conflict. The forces working for growth and change in British higher education are very strong, though stronger in the larger society--in the politics of democratization and the economics of modernization--than within the universities themselves. The broad question to which we must turn is how the British universities, and the men in them, will respond to these forces: to what extent they will resist, to what extent contain and divert, to what extent accept and be changed by these forces coming to bear on them. To some unknown degree the distinctive virtues of British universities--their freedom based on autonomy, their high standards, their capacity to preserve, add to and transmit the values of the society's high culture--are based on their profound conservatism in defense of their small size and elite functions. Finally, therefore, we must ask, even if we cannot answer, the question of how expansion and change will affect the existing strengths and virtues of the elite British university system; and whether there are not strengths and virtues it may gain as well as lose in the course of change. Our answers to that question will involve our own social and political values, as it does those of the university teachers whose values and attitudes we have been studying.

CHAPTER VIII

TYPES OF ACADEMIC ORIENTATIONS AMONG BRITISH UNIVERSITY TEACHERS, AND CONCLUSION

This report has taken as its central task to describe the British academic man at the moment when the British university system was undergoing a major expansion in size and scale--an expansion required by the society, recommended by the Robbins Committee, and accepted as Government policy by both major political parties. This expansion is still contained within the organizational forms and educational assumptions of an elite university system, based on very severe selection of a relatively small proportion of highly gifted youth who are then given a most careful and intensive education for scholarship or social leadership. Alongside this central teaching function of the universities, academic men continue a tradition of research and scholarship devoted for the most part to the growth of basic knowledge rather than to its potential social applications. But while the expansion of recent years, and that immediately ahead, can be assimilated to the current academic standards, staff-student ratios, level of amenities and elitist assumptions of British academic life, continued growth of numbers and functions will first strain and then surely modify both the normative and the organizational forms of British higher education. And we are especially interested in how the values and attitudes of British university teachers will influence the rate at which these changes will occur, and the forms they will take.

British academic men differ among themselves in their attitudes toward the changes in the universities that are already underway or are likely to accompany further growth. At first glance, we might imagine that university teachers differ along a single dimension that we might call "traditional-progressive," or perhaps "conservative-expansionist," with men at the opposite ends of the continuum holding different conceptions of the academic role, of university government, of the primary function of the university in society. But our analyses in the preceding chapters--of the nature and sources of university teachers' orientations toward expansion, research and teaching, the departmental organization of the universities, among other things--suggest that basic differences in academic orientations are more accurately represented by a typology than by a single dimension of variation. One dimension of this typology of academic orientations has to do with the conception of the university as an elite, or as a relatively open and popular, institution. The other dimension points to variations in the conception of the university teacher's primary role as a creator of knowledge or as a teacher and transmittor of values and culture.

These stark polarities of course do not do justice to the complex views and attitudes held by individual university teachers, nor do they capture the nuances of thought and feeling by which men manage to maintain conceptions of the university and of their academic roles which reflect *both* expansionist and elitist values, and which accept *both* teaching and research as legitimate and complementary functions of the university. Nevertheless, as we have seen in the preceding chapters, men do differ in the emphasis they place on these values, the priorities they place on their embodiment in university organization, and in the allocation of both national and personal resources. And it is the *relative* emphasis in their values and orientations, we suggest, that is crucial during a period of expansion and change, when men can oppose, or attempt to delay, or welcome, or even try to accelerate the changes that are associated with the expansion and democratization of British higher education.

Recognizing, therefore, that any such typology is more an analytical and heuristic device than an effort to characterize individual men and their views, we may find it useful to examine the types of academic orientation generated by these dimensions:*

A Typology of Academic Orientations

Conceptions of the Primary Academic Role	Conceptions of the University	
	Elitist	Expansionist
Research: the creation of knowledge	1	2
Teaching: the transmission of knowledge and the shaping of character	3	4

1. Elitist-Researchers: Men with these views are concerned very much with intellectual brilliance and creativity, which they take to be largely genetically given and statistically rare. The function of an educational system is to identify the small minority of really able and gifted people, and then to create the intellectual environments in which their talents can be developed and realized. The universities are preeminently the institutions where this identification and education of the small number of gifted people should take place. It is there that academic men of high intellectual abilities can find the first-class minds among the students, and, through close personal attention, encourage them to prepare to make their own scholarly and scientific contributions. The purest examples of these attitudes can be found among research scientists and medical men, but they can

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[*] A preliminary effort to distinguish these types through the survey data is presented in Appendix A.

be found throughout the British university system. Since this orientation is concerned more with brilliance and achievement, and less with character and ascribed status, it has been the "progressive," "reformist" academic position for the hundred years between the middle of the nineteenth and the middle of the twentieth centuries. The prestige and legitimacy these views gained during that century, when they were associated also with the high standards and great scientific and scholarly achievements of the British universities, make them in post-Robbins Britain the most formidable bulwarks of conservatism in British university life.

2. Elitist-Teachers: Men with these academic orientations are also concerned with identifying "first-class" men, but are concerned somewhat more with the character and qualities of mind of the rather larger number of undergraduates who will assume positions of leadership throughout the society. These attitudes are, in a sense, the natural extensions of the values and conceptions that govern the great public schools: they are concerned less with brilliance and creativity than with the transmission of the high culture, and of certain ways of thinking and feeling, to the young men who will guide the destinies of the larger society. These men are somewhat apprehensive of what they see as an "overemphasis" on research, precisely because of the danger of research interests narrowing rather than broadening and humanizing students' perspectives, and also because a heavy emphasis on research can be subversive of those personal qualities and commitments to social leadership which are their prime concern in their work with students. (They can already see the effects of a research emphasis on scientists and social scientists, many of whom, from their point of view, are not genuinely educated men.)

These views, still probably the most widely held of our four types of academic orientations, provide the back-cloth against which all reformist and expansionist efforts in British universities are played out. There are, of course, great variations in the ways these views are expressed and defended: for some, they are a forthright traditional defense of traditional privilege, and are associated with class feelings and snobberies. For others they are an expression of certain humanistic values, part of a defense not merely of an elite institutional system but of certain conceptions of civilized society, and of high culture and elite values against the levelling tendencies of modern mass technological society. The men holding these views, in whatever form, are currently very much on the defensive, not merely against the radical reformers but also against the much larger body of moderate progressives who are concerned with the consequences of these elite conceptions of the university for British society and its economy. But interestingly, in contemporary Britain these traditionalist views are rarely argued--they come increasingly to take the form of sentiments (which nevertheless guide action) rather than an articulated philosophical position. The Robbins Report did not bother to address itself to this position, but rather spent most of its space and statistical resources in reassuring the Elitist-Researchers that the moderate expansion it was recommending would not be accompanied by a decline in standards. Nevertheless, these sentiments are at once most vulnerable and most resistant to the growth of numbers, and to the expansion of graduate education and organized research in British universities. They are, as we have suggested, very widespread among academic men, they shape thousands of unpublicized decisions made in colleges and committees, and will, within the broad autonomy of British universities, heavily influence the rate and forms of change in British higher education.

3. Expansionist-Researchers: These orientations resemble those held by the academic men who staff the leading American private and state universi-

ties. Men with these orientations are less concerned with the identification and nurture to the rare "alpha" man than are the Elitist-Researchers, and tend to identify the growth of knowledge with the growth of research resources, organizations and numbers of people that come with university expansion. They are more likely, also, to accept a larger direct social role for universities, and for the knowledge created there. These men are likely to be the most influential advocates of university reform and expansion within the universities, since they oppose to the traditional elitist conception of the university the values of research and the expansion of knowledge which are institutionalized within the university. Nevertheless, in the British context men with these attitudes are more likely to support a moderate than a radical expansion of the university system, in part because there is a certain element of elitism implicit in all scholarly and scientific research, a passionate concern for quality if not privilege. And it was this concern to which Robbins was speaking when he recommended an expansion keyed to the maintenance of existing academic standards, which limits the extent of expansion that men with these views will support.

4. The Expansionist-Teachers hold views in the British context which resemble those held very widely in American society, and especially in the broad non-elite sections of American higher education. These views stress the popular functions of education in providing opportunities for all to achieve their highest potential, and in raising the level of knowledge and skill of the whole population. This essentially extends to higher education the basic justification for mass primary and secondary education, and inevitably de-emphasizes the elite university functions of training an intellectual or political leadership or of creating knowledge. It is not surprising, therefore, to find that academic men holding this orientation toward the

university are by far the strongest supporters of the comprehensive principle in secondary education, and are most likely to oppose specialization, both in secondary school and the university. These attitudes, while represented throughout British universities, appear to have very little weight in current discussions of the future of the universities. They are, however, more substantially represented in the institutions of further education, which in the British context are likely to be the basis for any movement toward mass higher education in the future.

We have not yet fully explored the social sources of these different academic orientations, nor their links to the university system and its ranks and subjects, nor their implications for the changes in British higher education that are already under way. Our aim in pursuing those questions will be, on one hand, to illuminate further the structure and internal variation of the British academic profession, and, on the other, to develop more fully the connections and patterns of mutual influence between the universities and other social institutions.

But that is for the future. Here, in brief conclusion to this Report, it may be useful to shift our attention away from the differences among British academic men, and toward their common characteristics and the character and emerging dilemmas of the universities in which they serve.

Conclusion

The British political genius is both to accomplish and to contain change through conservative institutions. This is nowhere clearer than in the evolution of British universities over the past 150 years. In England, e.g., the two corrupt, stagnant aristocratic universities of the 18th century have become the forty-odd meritocratic and creative universities of today, growing at a rate that will double their student numbers in a decade. And yet, the changes that are underway in British university life are still contained within what are essentially traditional universities devoted primarily to the traditional functions of universities.

What are the traditional functions of the university, and what is happening to them today?

First, the universities transmit the high culture, the possession of which has been thought to make men truly civilized. A second function of the universities is the creation of new knowledge and ideas for their own sake, through pure scholarship and science. There is, third, the selection, formation and certification of a social elite: the learned professions, the higher civil service, the politicians, and (though less in Britain than on the Continent), the commercial and industrial leadership, as well as the teachers in the preparatory secondary schools where the children of that elite are educated and prepared for their accession to elite status. And fourth, there is the provision of higher vocational training, particularly that associated with the old professions of medicine, law, the clergy, and teaching in university and preparatory secondary schools.

In the past all of these functions could be discharged more or less adequately by small elite university systems with strong traditions and customs changing relatively slowly over decades. The transmission of a high culture, for example, is itself a powerfully conservative function. The conception of that culture to be transmitted through the universities was, over hundreds of years, gradually secularized and broadened beyond the mediaeval and classical limits; but it was still easily carried and contained within the old conception of the elite university. The invention in Germany of the scientific research institute associated with the university, and the slow assimilation there and elsewhere of science, history, and more recently the social sciences into the curriculum, has also been compatible with the small size and elite character of the old university.

With respect to the third function, the size of the elites being selected and trained was also compatible with the university system as it existed. There was, until recently, a relatively small demand for graduates, and a small capacity to absorb them in the economy. The structure of primary and secondary education in European countries also insured that the number of candidates for the university system would be small. And finally, the universities were well able to provide a limited amount of vocational training for the old learned professions.

What is happening to those traditional functions of the elite university? First, there is an increasing demand from larger groups in the population for a share in and possession of the high culture, a demand which is not met by the transmission of that culture through the elite university. There has been over the past decades, in Britain as elsewhere, an erosion of the legitimacy of class cultures. In every modern society there is a growing feeling that it is right and proper for all men to claim possession of the high culture of their own societies. In schools and through the mass media, ordinary people are encouraged to share in the high culture, both for its own sake and also as a mark of a cultivated man. And side by side with this tendency there emerges a kind of instrumental or vocational function of high culture, the possession of which becomes the sign of eligibility for certain elite positions. This tendency also lies behind the enormous growth of demand for the higher liberal education.

Second, there is the explosion of scientific research, perhaps best known of all the forces that lie behind university expansion. This growth is symbolized by Robert Oppenheimer's observation that of all scientists who ever lived, ninety percent of them are alive today. That says something not only about the institution of science, but also about the universities and research centers in which most of it is done.

Third, there has been a growth both in the size of the old elite occupations and professions, and also in the numbers of new professions and semi-professions which demand or purport to require a higher education. Over and above this is the demand on the part of growing numbers for higher education that is not linked to membership in any elite, either the old or the new. This latter development is associated with changes in the educational standard of living of the British middle and working classes. Increasingly throughout the class structure, very markedly already in the middle classes but visible also among the growing technician-working class, higher education is coming to be seen as part of the decencies of life rather than one of its extraordinary privileges. Gradually moving down through the class structure, some kind of higher education comes to be seen as appropriate not just for people of a higher class or extraordinary talent, but as possible and desirable for youngsters of "average" talent and ambition. This strong trend toward higher standards of educational achievement in every social and economic class is associated with the abolition, or at least the amelioration of selection by wealth, the democratization of the lower levels of schooling, and especially of the academic preparatory school. In many European countries, including Britain, we see a movement towards the various forms of comprehensive secondary schools that are a prerequisite for the development of mass non-elite higher education. These changes in the educational standard of living of the general population are confounding projections of university expansion in almost every European country, and most certainly those of the Robbins Committee.

Fourth, on the matter of vocational training, we see what has come to be an insatiable demand on the part of the economy and the occupational structure for more and more highly trained people for the new or emergent professions and semi-professions: technical, organizational, cultural, welfare. Behind this lie both economic and political forces: for example, the creation of the welfare state itself generates whole new categories of occupations which are candidates for higher education. Moreover, the extension of secondary education, and the expansion of higher education, makes teaching itself one of the major consumers of educated manpower.

These pressures for expansion are reflected in the growth of higher education in every industrial society. Sweden had 14,000 university students in 1947. By 1962 that number had tripled to 45,000; by the early 1970's they anticipate a further doubling to about 90,000, who will then comprise about 15% of the relevant age grades. France anticipates a growth in its university population between 1960 and 1970 from 200,000 to 500,000. Denmark doubled its university student population between 1960 and 1966, going from 15,000 to 30,000; by 1975 they mean to double again to 60,000, which at that time will comprise about 18% of the age grade. In the United Kingdom, as we have seen, the Robbins Report had university student numbers growing from about 130,000 in 1962 to 220,000 by 1973, and to something near 350,000 by 1980; and these figures are already being exceeded.

But these numbers conceal (or perhaps foreshadow) two broadly different kinds of trends, or forces which will be reflected in trends. One of these is the expansion of the elite universities--that is, the growth of traditional university functions in the traditional (or somewhat modified) forms. The other is the transformation of elite university systems into systems of mass higher education, performing a great variety of new functions (at least, new to the universities) for a much larger proportion of university-age youth. For the most part, the expansion of higher education, in Britain as on the Continent, has thus far taken the form of the expansion of the elite university system--and it is impressive how expandable these ancient or elite establishments are. But they are not infinitely expandable--for reasons having to do with their traditions, organization, functions and finance it is likely that an expansion of enrollment in higher education beyond about 15% of the age grade requires not merely the further expansion of the elite university systems, but the creation of mass higher education through the rapid growth of popular, non-elite institutions.

But while the expansion of the universities carries difficult problems in its train (for example, the administrative overload on the professorial heads of departments), the development of extensive non-elite forms of higher education in some relation to the universities creates larger and more intractable problems, having to do with the status of university graduates and teachers, the autonomy of institutions, and the relation of both non-elite and elite forms of higher education to governmental authorities. The pressures for equivalent support and a similar government for all forms of higher education is very great, and yet the privileges, freedoms, and levels of support of the universities are made possible precisely by their relatively small size and insulation from the main political and economic arenas--that is, by their elite status. The growth of non-elite forms of higher education will pose problems and create difficulties for the universities far beyond those associated with their own current expansion.

The first response of progressive university people to pressures for expansion is to absorb the growth in the universities. To such men, the expansion of the university system is the natural way of expanding higher education.

Moreover, they see the advantages of a larger system, and in many cases, of larger institutions: the greater resources, the new staff appointments, the opportunities that expansion provides for all kinds of reforms and innovations through the creative allocation of new funds rather than the much more difficult reallocation of existing resources.

The stubborn resistance of the conservatives among academic men only confirms the progressives in the rightness of their cause. All the traditional elitist slogans--"more means worse," "the cream rises," and so forth--have been widely discredited both by research and by recent experience, and moreover are manifestly irrelevant to the needs of social institutions and the demands of relevant populations.

And indeed, most European societies need and can afford a considerable expansion of their university systems. Universities can grow from three to six to ten to fifteen thousand, additional universities can be created and staffed, and numbers can double or triple in the two decades 1950-1970, as we have seen, without changing the fundamental character of the university system. Some strains are felt: there are difficulties in staffing the expansion, and in building so much so fast; the old leisurely administrative machinery groans under its new loads; and the traditional supremacy of the single professor as head of department, and as member of the professorial oligarchy in university government, is challenged by the growth both of staff and of knowledge.

But the real difficulties associated with growth arise not in connection with university expansion, but with the development of pressures for a system of higher education that provides places for twenty, thirty, or even forty percent of the age cohort. In no society, we suggest, can elite institutions such as the British universities provide for that kind of mass higher education and remain elite institutions. For one thing, their academic standards are too high; for another, their costs are too high, costs which are a function of elite university salary scales, staff-student ratios, amenities, and above all, of their expensive provisions for research and scholarship.

But as we have seen at many places in this study, British academic men, even the progressives and expansionists among them, are not prepared for an expansion that would threaten the central characteristics of elite universities. They want to strengthen the universities, not destroy them, and support moderate and controlled expansion which will allow the preservation of the central elite characteristics of the university as they know it. It was precisely the Robbins argument that university numbers could be substantially increased without lowering academic standards or the staff-student ratio that won it support from a broad spectrum of academic men, as well as implementation of its recommended expansion by both Conservative and Labour governments.

But the ongoing expansion of the university system, which fills the horizons and absorbs the energies of academic men and government committees, is not the first stage of the development of mass higher education. The institutions of mass higher education must differ in fundamental respects from the elite universities--they cannot be merely the further extension of university expansion. They must differ:

a. in cost. No society can yet afford to educate thirty percent of its youth at the cost of education at Harvard, Oxford, or Sussex (or Berlin or Uppsala);

b. in their less rigid emphasis on very high or traditional academic requirements for admission;

c. in their vocational and service emphasis;

d. in their sources of recruitment and forms of training of staff;

e. in their degree of autonomy, and their relation to the governmental agencies which provide their support.

Insofar as the universities provide the dominant forms and structures for expansion, the result will be either to inhibit expansion, or to threaten the traditional forms and freedoms of university life.

It is easy, and not very useful, to suggest that university teachers in their own interest should welcome the development of non-university forms of higher education which, by absorbing the bulk of future expansion, can insulate the universities against the devastating effects of mass higher education on their standards, climates and autonomy. But university men, as our study shows, are basically conservative; even those who are boldest and least conservative in their own intellectual lives want to preserve and strengthen the institutions which make their scientific and scholarly achievements possible. Expansion means change; change holds promise, but also threat. There is little evidence that British academic men have given much thought to either the promise or the threat that expansion holds for their institutions, much less to the role of the university in the larger and more varied system of mass higher education that lies just over the horizon.

In this study we have been exploring the characteristics and sentiments of British university teachers. We have been looking for the sources of change and of resistance to change among them. What we have found, in a word, is a profession differing within itself on many specific issues, but largely agreed on the rightness of the British university as it now exists, and rather cautiously committed, with few exceptions, to the defense of that institution (somewhat reformed and expanded) against the pressures and incalculable changes of the future. These men and their views will have considerable weight in shaping the forms of response of British universities to the growing pressures for more higher education that are beginning to emerge in the larger society.

APPENDICES

Appendix A: Index Construction, Additional Tables and Notes

Chapter	Pages
III	A-1 - A-4
IV	A-5 - A-6
V	A-7 - A-14
VI	A-15 - A-22
VII	A-23
VIII	A-24 - A-27

Appendix B: Questionnaires

Appendix C: A Chronology of Research Operations

Appendix D: Research Proposal

APPENDIX A

INDEX CONSTRUCTION, ADDITIONAL TABLES AND NOTES

NOTES TO CHAPTER III

Table 3.34 Opinions on Expanding the Respondent's Own Subject

Q.8 "Do you think that the number of new places in the university system in your subject should be expanded in the next decade?"

	Per Cent Answering
No	8
Yes, under 25 per cent	31
Yes, between 25 & 75 per cent	42
Yes, over 75 per cent	18
Total number	(1371)

Table 3.35 Growth of Institutions (on next page)

Table 3.36 Anticipation of effects of expansion

Q.11 "If the number of students doubled in the next decade with the same staff-student ratio, what would you expect to be the effect on the quality of graduates in your subject from your university?"

	Per Cent Answering
Marked deterioration	16
Some deterioration	50
No change	27
An improvement	6
Total number	(1372)

Index of apprehension

Items: Q. 6 "Do you feel that the expansion that has already taken place over the past decade has affected the quality of students admitted to your university in your subject?" ("Ability lowered considerably" or "Ability lowered to some extent" coded 0, "No appreciable change" or "Ability has risen" coded 1.)

Q.11 "If the number of students doubled in the next decade with the same staff-student ratio, what would you expect to be the effect on the quality of graduates in your subject from your university?" ("Marked deterioration" or "Some deterioration" coded 0, "No change" or "An improvement" coded 1.)

A-2

Table 3.35 Growth of Institutions in the British University System, 1938-1963

Full-time Students: Sources (1938/9) University Grants Committee Returns for 1938/9, 1954/5 and 1962/3 Commonwealth University Yearbooks 1957 and 1964

	1938/9	% to	1954/5	% to	1962/3
Birmingham	1,433	119	3,135	52	4,766
Bristol	1,005	165	2,666	37	3,642
Cambridge	5,931	34	7,934	14	9,040
Durham, Durham Colls.	412	167	1,098	62	1,775
Durham, King's Coll./ Univ. of Newcastle	1,297	117	2,817	47	4,145
Exeter	422	111	889	98	1,763
Hull	-*		727	167	1,942
Leeds	1,757	93	3,398	64	5,561
Leicester	-*		638	170	1,724
Liverpool	2,055	42	2,919	62	4,738
London	13,191	38	18,201	24	22,644
Manchester	2,108 }2,462	88	4,637	62	7,515
Manchester Coll. Tech.	354				
Nottingham	582	255	2,066	36	2,814
Oxford	5,023	43	7,187	22	8,803
Reading	584	90	1,110	59	1,764
Sheffield	767	162	2,010	75	3,524
Southampton	268	310	1,100	72	1,892
N. Staffs.	-		520	64	852
Sussex	-		-		434
England	37,189	70	63,052	42	89,338
Aberystwyth (?)	663	65	1,096	63	1,787
Bangor	485	73	839	88	1,576
Cardiff	970	51	1,467	51	2,221
Swansea	488	68	821	129	1,877
Welsh Nat'l School Med.	173	40	242	-35	157
Wales	2,779	61	4,472+	70	7,618
England and Wales	39,968	69	67,524	44	96,956
Aberdeen	1,211	36	1,652	48	2,445
Edinburgh	3,205	44	4,608	46	6,710
Glasgow	4,175	14	4,748	23	5,860
Glasgow R.T.C.	515	155	1,315	51	1,988
St. Andrews/Dundee	928	96	1,820	67	3,044
Scotland	10,034	41	14,143	42	20,047
TOTAL	50,002	63	81,667	43	117,003x

* Not then supported by U.G.C.

+ Disparity in A.U.B.C.'s own figures.

x There is a disparity of approximately 1% between this (A.U.B.C.) total and the Robbins Committee's total for this year of 118,400.

Table 3.37 Index of Apprehension

Score	Number	Per Cent
0 ("highly apprehensive	247	19
1 ("somewhat apprehensive")	632	49
2 ("not apprehensive")	413	32

Total 1292: 116 cases, or 8% of the sample, were not scored.

Table 3.38 Proportions of sample supporting expansion of system, subject, both or neither.

	Per Cent
Support significant expansion of system (50% or more) __and__ " " of subject (25% or more)	52
Support significant expansion of system but __not__ " " of subject	15
Support significant expansion of subject but __not__ " " of system	8
Support significant expansion of __neither__	24
Total	(1348)

Table 3.39 Index of Apprehension by Political Position (per cent)

	Political Position			
Index of Apprehension	Far Left	Moderate Left	Center	Right
Highly apprehensive	11	14	22	27
Somewhat apprehensive	33	49	46	56
Not apprehensive	56	37	32	16
Totals	(54)	(598)	(353)	(245)

Tables 3.40-42 Opinions Regarding University Expansion by Degree of Apprehension, Within Categories of Political Position (per cent)

		Political Position											
		Far Left			Moderate Left			Center			Right		
		Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.	Not Appr.	Some-what Appr.	Highly Appr.
3.40	Proportion of Age Grade												
	30%+	59	18	34	24	14	9	10	5	5	15	7	2
	20%+	33	35	17	44	44	36	45	39	25	44	32	26
	Less 20%	8	47	50	32	41	55	45	55	70	41	62	72
3.41	CATs University Status												
	Yes	97	65	83	90	77	69	84	62	53	58	50	38
3.42	Exp. Places in Own Subject												
	No	7	22	33	3	6	16	6	7	13	8	12	12
		21	39	50	18	39	55	27	35	55	31	54	64
	Under 25%	14	17	17	15	33	39	21	38	42	23	42	52
	25%-75%	25	33	17	44	46	40	47	44	37	50	43	30
	75% +	52	28	33	38	16	6	26	11	8	20	4	6
	N (varies slightly)	(29)	(18)	(6)	(217)	(289)	(83)	(111)	(157)	(78)	(40)	(134)	(67)

Table 4.34 Publication of Books by Publication of Articles, within Subject Categories (per cent)

Number of Books	Arts					Social Science					Natural Science				
	Number of Articles					Number of Articles					Number of Articles				
	0	1-4	5-10	10-20	20+	0	1-4	5-10	10-20	20+	0	1-4	5-10	10-20	20+
0	76	73	51	29	14	81	76	54	40	21	100*	97	87	78	53
1	18	15	32	30	17	15	19	24	19	12	0	3	10	18	26
2	3	8	8	23	17	0	4	15	15	17	0	0	3	2	11
3+	3	4	8	18	53	4	2	7	26	50	0	0	0	2	10
Totals	(38)	(93)	(84)	(66)	(72)	(26)	(54)	(46)	(47)	(42)	(9)	(73)	(91)	(80)	(151)

(continued below)

Number of Books	Technology					Medicine				
	Number of Articles					Number of Articles				
	0	1-4	5-10	10-20	20+	0	1-4	5-10	10-20	20+
0	100*	96	87	75	58	100*	100*	89	71	55
1	0	4	9	21	29	0	0	5	23	24
2	0	0	0	4	4	0	0	5	3	12
3+	0	0	4	0	8	0	0	0	3	8
Totals	(16)	(57)	(53)	(28)	(24)	(3)	(10)	(19)	(35)	(74)

* N's too small to be reliable: presented for completeness only.

Index of research orientation

ITEMS:	Q. 17	Do your own interests lie primarily in teaching or in research? ("Very heavily in research" coded 0, "Both, but leaning to research" coded 1, "Both, but leaning to teaching" coded 2, "Very heavily in teaching" (CATs & Sussex only) coded 2.)
	Q. 49(i)	An academic man's first loyalty should be to research in his discipline. The teaching of students and the running of his university should be second to this first duty of an academic career. (Trichotomized: "Strongly agree" or "Agree with reservations" coded 0, "Disagree with reservations" coded 1, "Strongly disagree" coded 2.)

Table 4.35 Distribution of Index of Research Orientation

	Score	N	%
Research	0	84	6
	1	372	28
	2	340	25
	3	366	27
Teaching	4	172	13
		1334	

74 cases (5% of sample) not scored.

Table 5.53 Research Orientation (index) by Class of First Degree and Subject Taught (per cent)

	Arts				Social Science				Natural Science				Technology			
Orien-tation	I	II(i)	Un-div. II	Pass/Un-class.	I	II(i)	Un-div. II	Pass/Un-class.	I	II(i)	Un-div. II	Pass/Un-class.	I	II(i)	Un-div. II	Pass/Un-class.
Research	32	50	33	48	24	21	14	33	38	34	43	29	27	38	30	21
Both	26	16	18	12	19	24	33	20	30	36	32	29	20	12	27	43
Teaching	42	34	49	40	56	55	53	47	32	31	25	42	53	50	42	36
Totals	(181)	(44)	(45)	(25)	(94)	(42)	(36)	(15)	(204)	(59)	(60)	(24)	(85)	(24)	(33)	(14)

Table 5.54 Aspects of Leave by Research Orientation (index) and Subject Taught (per cent)

	Arts			Social Science			Natural Science			Technology			Medicine		
Latest Leave	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
Before 1959/60	49	58	49	20	14	28	48	38	17	*	*	*	28	12	*
1960 or 1961	23	16	14	40	71	47	17	21	33				28	47	
1962 or after	29	26	38	40	14	25	36	41	40				44	41	
Totals	(35)	(31)	(37)	(20)	(21)	(32)	(42)	(28)	(15)				(18)	(17)	(6)

Key to columns:

R = Research

B = Both

T = Teaching

* N's too small to be significant

Tables 5.55 and 5.56 Aspects of Leave by Research Orientation (index) and Subject Taught (per cent)

5.55 Leave Spent Where:	Arts			Social Science			Natural Science			Technology			Medicine		
	R	B	T	R	B	T	R	B	T	R	B	R	R	B	T
At home	26	30	26	12	5	10	15	12	0	*	*	*	11	0	*
Elsewhere in Great Britain	6	7	12	18	5	23	3	8	6				6	6	
America	35	41	29	35	47	39	69	48	62				67	69	
West Europe	13	11	21	6	5	19	5	8	6				6	0	
Africa	3	7	3	12	5	6	0	4	6				0	12	
Asia	3	0	6	0	21	0	3	0	6				0	6	
East Europe, U.S.S.R.	3	4	3	12	5	3	0	0	0				0	0	
Middle East	6	0	0	0	0	0	3	8	12				6	6	
Australia, New Zealand	3	0	0	6	5	0	3	12	0				6	0	
Totals	(31)	(27)	(34)	(17)	(19)	(31)	(39)	(25)	(16)				(18)	(16)	(6)

5.56 How was Leave Spent?	Arts			Social Science			Natural Science			Technology			Medicine		
Full-time research	47	48	59	61	37	44	68	65	44	*	*	*	39	38	*
Teaching, visiting professor	32	31	14	17	21	16	12	15	19				17	19	
Touring, teaching, visiting several universities	9	3	14	0	11	12	12	8	19				22	25	
Other	11	17	14	22	32	28	8	12	19				22	19	
Totals	(34)	(29)	(37)	(18)	(19)	(32)	(40)	(26)	(16)				(18)	(16)	

Key to columns:

R = Research B = Both T = Teaching

* N's too small to be significant

Note on preference for particular universities*

Our sample were asked about the kind of post that they would accept if offered them, or would prefer if they were given a choice. The first of these questions referred specifically to the new universities, and the second offered four different jobs at different institutions.(1) In some ways it may be more revealing to regard these questions as describing for us the character of the posts offered, rather than, as has been our procedure previously, describing the implications of the question in advance, and trying to derive from the results statements about the characteristics of researchers and teachers. Regarding the new universities, at the time of the survey Sussex was the only new university with a sizable faculty, and may then have been regarded as more typical of the new universities than it is thought now, especially since the next two new universities, Norwich and York, resembled Sussex in their emphasis on undergraduate teaching. But even then there were differences between them, and the questionnaire allowed for this with the possible answer "I might go to some, but not to others." Thus it is not easy to interpret the results of these tables. Table 5.57 (on the following page) offers the possibility of going to a new university at a higher rank, broken by subject and research orientation; Table 5.59 asks about taking a post at a new university at the same rank as at present. Tables 5.58 and 5.60 are the corresponding tables broken by age instead of subject.

Table 5.57 shows that researchers in arts would be relatively reluctant to go even at a higher rank. At Sussex, certainly, and quite largely at other new universities, the brunt of curricular reform and improved teaching has been borne by the arts and to a lesser extent the social science faculties or schools, and it is clear that arts researchers are aware of this in the comparatively high proportion who would not consider any new university. This does not altogether hold true for social science and natural science, but in both of these areas there is a higher proportion of teachers than of researchers who would accept at almost any. There is no clear pattern in technology and medicine.

Table 5.58 is obscure; in nearly every age group the two extremes of teachers and researchers resemble each other more than they do the intermediate group. But above the age of 35 a general trend seems to emerge, namely that as before researchers are relatively distrustful of the new universities, and teachers find them more attractive.

In Table 5.59 we find that very few academic men in any subject area, whether researchers or teachers, would consider going to almost any new university at the same rank. We are left to compare those who would consider some (unspecified) universities with those who would not consider any. In arts and social science especially, and also in natural science, researchers once again prove much more unwilling than teachers to contemplate going to a new university. In technology and medicine there is no real difference.

Table 5.60 gives the variation within age categories. In every category researchers are less willing than teachers to think of taking a post in a new

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(1) These are Questions 29-30 and 33, in Appendix B.

* See p. V-21, Note (8)

Table 5.57 Would Consider Going to a New University at Higher Rank? by Subject and Research Orientation
(index) (per cent)

New University at Higher Rank?	Arts			Social Science			Natural Science			Technology			Medicine		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
I would not consider any	26	21	18	15	9	15	16	11	15	16	7	14	13	14	34
Might some, not others	47	55	56	60	52	48	65	60	57	66	63	66	52	46	38
Accept at almost any	11	4	14	13	22	22	9	18	19	12	10	14	17	11	28
Already hold Chair	15	17	9	13	15	15	10	11	9	6	20	5	15	30	0
Totals	(123)	(71)	(138)	(47)	(46)	(110)	(146)	(114)	(117)	(50)	(41)	(85)	(60)	(37)	(32)

Table 5.58 Would Consider Going to New University at Higher Rank? by Age and Research Orientation
(index) (per cent)

New University at Higher Rank	Under 30			30-34			35-39			40-44			45+		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
I would not consider any	9	4	8	15	5	13	21	7	8	21	7	14	27	27	28
Might some, not others	71	71	71	71	80	67	57	61	60	56	51	60	27	36	39
Accept at almost any	19	25	19	10	7	19	17	20	24	7	16	15	7	7	14
Already hold Chair	0	0	0	3	4	0	5	12	7	17	27	8	36	29	18
Totals	(101)	(48)	(59)	(100)	(56)	(89)	(81)	(75)	(120)	(72)	(45)	(72)	(91)	(107)	(177)

Key to column headings: R=Research; B=Both; T=Teaching

Table 5.59 Would Consider Going to New University at Same Rank? by Subject and Research Orientation (index) (per cent)

New University at Same Rank?	Arts			Social Science			Natural Science			Technology			Medicine		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
I would not consider any	72	66	54	70	61	47	63	49	59	64	49	65	70	78	69
Might some, not others	25	32	42	30	35	45	36	49	37	32	46	32	25	19	28
Would to almost any	3	0	3	0	2	7	1	2	3	2	5	2	3	0	3
Totals	(123)	(71)	(138)	(47)	(46)	(110)	(146)	(114)	(117)	(50)	(41)	(85)	(60)	(37)	(32)

Table 5.60 Would Consider Going to New University at Same Rank? by Age and Research Orientation (index) (per cent)

New University at Same Rank?	Under 30			30-34			35-39			40-44			45+		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
I would not consider any	52	42	44	69	59	47	75	65	61	74	56	57	67	65	65
Might some, not others	44	58	51	30	41	49	22	29	36	24	38	39	29	33	28
Would to almost any	3	0	3	1	0	3	2	4	3	1	4	4	3	0	5
Totals	(101)	(48)	(59)	(100)	(56)	(89)	(81)	(75)	(120)	(72)	(45)	(72)	(91)	(107)	(177)

Key to column headings: R=Research; B=Both; T=Teaching

university. And once again (compare Table 5.18) it is in the age category 30-34 that the biggest difference is to be found between teachers and researchers. The difference is small for those under 30 (and they are also the group most willing to go to a new university at the same rank, perhaps because they could hardly expect at that age to be promoted above the Lecturer grade); it is largest for the 30-34 group; from 35-39 and 40-44 it is smaller again, and has almost disappeared in those over 45, who are however consistently unenthusiastic.

These data suggest something about the general view of the new universities from within the university system. They seem to have the reputation which we described above, of being, more than other places, teaching institutions. Research-minded men at the time of the survey tended to avoid them, particularly in the years when they had their reputations to make by a large research output: and teachers were more attracted by them. The teaching emphasis is evidently seen as strongest in the arts and social sciences, but is present also in natural science. (It is perhaps not significant that the same results were not found in technology and medicine, since at the time of the questionnaire no new university had departments in either of these fields.)

Our final question in this field of academic aspirations provided a list of four positions, each of which would have very different responsibilities. Respondents were asked to choose which would be most attractive to them. They were a University Lecturer and College Fellow at Cambridge, a Professor at Brighton, a Professorial Head of Department at Leeds, and a Reader in the University of London. Since the character of these posts appears very clearly from the table, we shall not attempt to describe them in advance.

In Table 5.61, among Arts men the Cambridge post is particularly favored, and more so by researchers than by teachers. Researchers also are relatively attracted by the London Readership; while the Brighton Professorship appeals to all groups roughly equally, and the Leeds post, though not attractive to many, is more so to teachers than to researchers. In social science Cambridge again appeals to the largest proportion, but not differently to teachers and researchers. The former favor a Brighton Professorship, and the latter are much more attracted by the London Readership. In natural science it is the Leeds post that appeals most to researchers, and Brighton to teachers, while a London Readership is not attractive to any groups, and Cambridge is so to all. Technology is confused by the rather odd preferences of the middle group, but the trend such as it is seems to resemble natural science in that researchers single out Leeds differentially, and teachers Brighton. In medicine researchers favor Leeds and London, teachers Cambridge.

This table provides an interesting background to Tables 4.19A and 4.20 which showed the effect of combinations of university group and subject and rank on research orientations. From the examples here we learn first that a Cambridge post is more attractive to many university men even than a Professorship elsewhere, and that it attracts both researchers and teachers more or less equally (except in medicine). Evidently it is possible to use the same post at Cambridge as a place from which either to conduct research using all the facilities of a large university, or to take advantage of its tradition of intensive undergraduate teaching. A Professorship at Brighton is seen as primarily a teaching post by social scientists and natural scientists; but the other subjects do not define it so clearly in this way.

Table 5.61 Which University Post Would Be Most Attractive to You? by Subject and Research Orientation (index)
(per cent)

Which post preferred?	Arts			Social Science			Natural Science			Technology			Medicine		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
University Lecturer and College Fellow at Cambridge	42	40	36	35	22	37	35	41	33	30	11	28	10	23	33
Professor at Brighton	21	18	23	20	38	37	30	33	43	20	53	31	23	36	27
Professorial Head of Department at Leeds	9	12	19	12	13	13	24	20	15	34	21	29	46	31	24
Reader in the University of London	26	25	21	31	22	10	9	5	8	12	13	14	21	15	15
Totals	(116)	(67)	(132)	(49)	(45)	(101)	(142)	(111)	(111)	(50)	(38)	(78)	(61)	(39)	(33)

Table 5.62 Which University Post Would Be Most Attractive to You? by Age and Research Orientation (index)
(per cent)

Which post preferred?	Under 30			30-34			35-39			40-44			45+		
	R	B	T	R	B	T	R	B	T	R	B	T	R	B	T
University Lecturer and College Fellow at Cambridge	31	32	31	29	12	34	27	20	26	28	40	37	53	49	40
Professor at Brighton	27	45	29	29	32	32	23	43	46	30	33	26	17	26	29
Professorial Head of Department at Leeds	25	11	16	30	33	25	26	24	20	19	12	21	18	14	19
Reader in the University of London	18	11	24	15	23	11	26	16	11	23	16	18	12	10	13
Totals	(99)	(44)	(58)	(101)	(57)	(85)	(78)	(76)	(114)	(69)	(43)	(68)	(77)	(97)	(161)

Key to column headings: R=Research; B=Both; T=Teaching

The post of Professorial head of a department at Leeds clearly implies an emphasis on teaching to arts men, but natural scientists, technologists and those in medicine obviously feel that it is a good place for research. This may very well represent a genuine difference between different subjects at Leeds in their emphasis on and capacity for research. Lastly the London readership is seen as offering good opportunities for research by arts, medicine, and particularly social science, while natural science and technology simply do not find it attractive.(2)

(2)Table 5.62 shows the distribution of preferences among these different posts among teachers and researchers of different ages. (See p. A-13.)

NOTES TO CHAPTER VI

Tables 6.27-30 Percentage Who Agree (with or without reservations) to Each Statement, by Subject Taught

	Social Science	Pure Science	Technology	Arts
6.27 Q.49(ix)				
Departments should be run by circulating chairman	70	60	45	55
6.28 Q.49(viii)				
Most redbricks are run by professorial oligarchy	88	76	74	77
6.29 Q.49(v)				
Should be second Professor for more than 8 members	79	79	76	76
6.39 Q.49(iv)				
Professorship should be normal expectation	42	38	39	37
Totals (vary slightly)	(210)	(403)	(178)	(350)

Index of attitudes to professorial power

ITEMS: Q.49(ix) "Most British university departments would be better run by the method of circulating chairmanship than by a permanent Head of Department" (Dichotomized: "Strongly agree" and "agree with reservations" coded 0, "disagree with reservations" and "strongly disagree" coded 1.)

Q.49(viii) "A serious disadvantage of Redbrick universities is that all too often they are run by a professorial oligarchy" (Dichotomized: "Strongly agree" and "agree with reservations" coded 0, "disagree with reservations" and "strongly disagree" coded 1.)

Table 6.31 Index of attitudes to professorial power

Score		Number	Percent
0	"Democrats"	640	51
1	"Part-democrats"	401	32
2	"Non-democrats"	212	17
	Total	1253	

155 respondents (or 11% of the sample) could not be scored.

Index of attitudes to professorial status

ITEMS: Q.49(v) "A university department with more than eight members of staff should have more than one member of professorial rank" (Dichotomized: "Strongly agree" and "agree with reservations" coded 1, "disagree with reservations" and "strongly disagree" coded 0.)

Q.49(iv) "A professorship ought to be part of the normal expectation of an academic career and not a special attainment of a minority of university teachers" (Dichotomized: "Strongly agree" and "agree with reservations" coded 1, "disagree with reservations" and "strongly disagree" coded 0.)

Table 6.32 Index of attitudes to professorial status

Score		Number	Percent
0	"Elitists"	280	21
1	"Moderates"	549	40
2	"Levellers"	531	39
	Total	1360	

48 respondents (or 3% of the sample) could not be scored.

Table 6.33 Attitudes toward Professorial Power, by Attitudes toward Expansion of the University System (per cent)

Attitudes toward Professorial Power	Recommended Expansion			Remain as it is
	Double	50%	25%	
Democrats	61	46	46	54
Part-democrats	24	37	33	33
Non-democrats	15	17	21	13
Totals	(341)	(497)	(331)	(48)

The indices of cosmopolitanism and localism

The terms "cosmopolitan" and "local" were first used by Robert Merton in a study of patterns of influence in a small town. These two types of residents were both clearly influential within their community, but their influence took different forms, and stemmed from different characteristics. The locals were influential because their lives were lived, and all their interests lay, entirely inside the community; while the cosmopolitans were respected because they provided links with the outer world. The terms were taken over and somewhat transformed by Alvin Gouldner, who proposed their use in the analysis of organizations (in the first instance, in the study of an

American college). He described cosmopolitanism and localism as "latent social roles" (latent since they are not formally prescribed or recognized by the organization); and they represent ways of examining the common conflict in an organization between its needs for loyalty and for the expertise which requires an attachment to an outer professional world. Gouldner saw the two as polarities, which were theoretically (and in practice) mutually exclusive. Three factors served to differentiate the types: (i) loyalty to the community or organization--locals high, cosmopolitans low; (ii) commitment to professional skills and values--locals low, cosmopolitans high; (iii) reference group orientation--locals inner, cosmopolitans outer.

We attempted to construct an index which would permit us to locate British university teachers along a dimension of cosmopolitanism-localism. In our initial explorations we discovered that indicators of cosmopolitanism were not highly related to indicators of localism, and we thus began by constructing two indices, of, respectively, cosmopolitanism and localism, each of which measured one of the first two of the three factors referred to above. Cosmopolitans were those who showed a high commitment to professional skills: locals those who showed a high loyalty to their own university. The items used were as follows (details of scoring, etc., may be found below):

For cosmopolitanism:

(1) those whose interests lay heavily or mostly in research, as opposed to those whose interests lay mostly in teaching
(2) those who had ever held office in a national or international academic, professional, or learned society
(3) those who had published more than 10 academic articles
(4) those who felt that reading journals or bulletins was a "very important" way for them to keep in touch with current work in their subject

For localism:

(1) those who felt their present university or college was "a very good place for me."
(2) those who did not anticipate applying for another post in the next three years.

The resulting indices showed no relationship (see below). It was found, however, that while either index separately was useful in analysis, the combination of the two was considerably more powerful: in other words the difference on a variety of dependent variables between "cosmopolitan-non-locals" and "non-cosmopolitan-locals" was considerably greater than that between either cosmopolitans and non-cosmopolitans or between locals and non-locals. It was therefore decided to create an index of "cosmopolitanism-localism" which would combine the two into a less unwieldy form. We describe below the construction of the separate indices for "cosmopolitanism" and "localism," and then show how they were combined into the single index of "cosmopolitanism-localism" that we use in the body of the chapter.

Index of cosmopolitanism

ITEMS: Q.17 "Do your own interests lie primarily in teaching or research?" (Dichotomized: "Very heavily in research" and "in both, leaning towards research" scored 1, "in both, leaning towards teaching" scored 0.)

Q.39 "Have you ever held office in a national or international academic learned or professional society?" ("Yes" scored 1, "No" scored 0.)

Q.40 "How many academic articles have you published?" (Dichotomized: "None," "1 to 4" and "5 to 10" scored 0, "10 to 20" and "more than 20" scored 1.)

Q.43 "How do you keep in touch with current and recent work in your subject? Please indicate the importance to you of the following methods: ...Reading journals and/or bulletins." (Dichotomized: "Very important" scored 1, "Fairly important" and "Not important" scored 0.)

Table 6.34 Cosmopolitanism Index

	Non-cosmopolitan	....	....	....	cosmopolitan	
	0	1	2	3	4	Total
Number	35	279	454	341	211	1320
Percent	3	21	34	26	16	

88 cases (or 6% of the total sample) could not be scored.

Index of localism

ITEMS: Q.25 "In general, how do you feel about your present university (or college)?" ("It is a very good place for me" scored 2, "It is a fairly good place for me" scored 1, "It is not a good place for me" scored 0.)

Q.28 "Do you anticipate that you will be applying for a post at another university in the next three years?" (Trichotomized: "Almost certainly will not" scored 2, "Probably will not" scored 1, "Probably will" and "Almost certainly will" scored 0.)

Table 6.35 Localism Index

	Non-locals	....	....	....	locals	
	0	1	2	3	4	Total
Number	56	265	361	328	348	1358
Percent	4	20	27	24	26	

50 cases (or 4% of the total sample) could not be scored.

Table 6.36 shows the relation (or absence of relation) between the two indices.

Table 6.36 Index of Localism by Index of Cosmopolitanism (per cent)

		Non-cosmopolitans	....	....	....	cosmopolitans
		0	1	2	3	4
Non-locals	0	3	4	4	6	1
	1	20	18	26	15	16
	2	17	28	30	27	18
	3	40	25	21	24	26
locals	4	20	24	19	28	39
Totals		(35)	(272)	(437)	(324)	(205)

Index of cosmopolitanism-localism

The two earlier indices were combined, by the process of scoring localism as it stands, and reversing the scores on the cosmopolitanism index: i.e., 0 scored 4, 1 scored 3, etc. The resulting index had a range from 0 to 8, with localism scoring high, cosmopolitanism low. The two extreme categories, 0 and 8, were too small to be useful, and were therefore combined with the nearest category, giving a range when revised from 1 to 7.

Table 6.37 Index of Cosmopolitanism-localism

	Cosmopolitans	....	....	....	....	....	locals	
	1	2	3	4	5	6	7	Total
Number	56	100	263	342	266	159	87	1273
Percent	4	8	21	27	21	12	7	

135 cases (or 10% of the total sample) could not be scored.

A note on the additive index

The most common type of index used in survey analysis resembles most of those used in this chapter (attitudes to professorial power and to professorial status, and cosmopolitanism and localism) in that it is formed from items that are clearly related to each other. The rationale for this procedure is that the relationship demonstrates that there is a common element in the items concerned: construction of an index enables us to draw out this common element, and eliminate some of the differences between the items that are thought to be irrelevant to their common component.

But even if the items are not statistically related there may still be reasons for combining them in an index. To take a very clear example, there might be reasons for supposing that persons who are relatively old, or relatively young, are in some sense perceived as socially inferior by the mass of the population; and the same might be said of women versus men. It would be possible, therefore, and theoretically justifiable, to construct an index of "perceived social inferiority" from the two items of sex and age. But in a normal population we would not find any correlation between sex and age. Similarly in this case, although we have found no relation between cosmopolitanism and localism we may still wish to construct a composite index, setting at one extreme cosmopolitans who are also not locals, and at the other locals who are not cosmopolitans. There is a problem of interpreting the middle categories: for in these will fall both those who are cosmopolitan and local and those who are neither. But towards the ends of the scale at least we can be fairly sure of what it is we are measuring.

The index we have constructed justifies itself by its usefulness in the analysis. Nevertheless, there is a loss of clarity regarding the meaning of scores in the middle categories. For this reason, it may be more illuminating to combine our separate indices of localism and cosmopolitanism into a typology which would allow us to distinguish--in addition to the extreme categories of cosmopolitan-non-local, and local-non-cosmopolitan--between men whose orientations are both inward and outward, local and cosmopolitan, and those whose orientations are not strongly in either direction, neither toward their disciplines at large nor toward their own institutions. But the results of this approach will be reserved for a later report.

The relation of cosmopolitanism to political position and attitudes to expansion

Table 6.38 gives the relationship between political preference and cosmopolitanism-localism.

Table 6.38 (please turn to next page)

Table 6.38 Cosmópolitanism-localism by Political Position (per cent)

Cosmopolitanism-localism		Political Position							
		Far Left		Moderate Left		Center		Right	
Cosmopolitans	1	6	21	4	13	4	12	5	10
	2	15		9		8		5	
	3	19		20		23		17	
	4	31		28		26		24	
	5	9	30	22	39	19	38	23	49
	6	15		12		12		16	
Locals	7	6		5		7		10	
Totals		(54)		(595)		(345)		(239)	

Table 6.39 gives the relationship between cosmopolitanism-localism and attitudes to expanding the university system.

Table 6.39 Attitudes to Expansion by Cosmopolitanism-localism (per cent)

Recommended Expansion	Cosmopolitans..........................				..locals
	1-2	3	4	5	6-7
Double	34	31	27	26	16
50%	36	39	43	40	43
25%	23	27	25	31	37
Remain as it is	7	3	5	3	4
Totals	(152)	(256)	(330)	(261)	(236)

Table 6.40 Attitudes to Professorial Power by Cosmopolitanism-Localism and Attitudes to Expanding the University System (per cent)

	Recommended Expansion														
	Double					50%					Insignificant Expansion				
	Cosmopolitan.........				Local	Cosmopolitan.........				Local	Cosmopolitan.........				Local
Attitudes to Professorial Power	0-2	3	4	5	6-8	0-2	3	4	5	6-8	0-2	3	4	5	6-8
Democrats	73	70	56	56	44	56	46	48	48	42	74	47	48	43	38
Part-democrats	20	18	26	23	35	37	37	32	34	41	24	37	31	33	33
Non-democrats	6	12	18	21	21	8	17	20	18	16	2	16	22	24	29
Totals	(49)	(77)	(78)	(61)	(34)	(52)	(94)	(130)	(90)	(92)	(42)	(68)	(88)	(75)	(76)

Table 6.41 Attitudes to Professorial Status, by Cosmopolitanism-Localism and Political Position

	Recommended Expansion														
	Left					Center					Right				
	Cosmopolitan.........				Local	Cosmopolitan.........				Local	Cosmopolitan.........				Local
Attitudes to Professorial Status	0-2	3	4	5	6-8	0-2	3	4	5	6-8	0-2	3	4	5	6-8
Levellers	57	49	42	32	26	50	39	43	42	31	61	32	38	28	31
Moderates	33	43	43	47	47	45	41	38	31	39	26	37	36	37	40
Elitists	10	9	15	22	28	5	20	19	27	30	13	32	25	35	29
Totals	(88)	(127)	(179)	(129)	(105)	(42)	(79)	(88)	(62)	(64)	(23)	(41)	(55)	(54)	(62)

NOTES TO CHAPTER VII

Tables 7.51-52 Spectrum and Party by Class of First Degree (per cent)

7.51

	Class of First Degree								
Spectrum	I	II(i)	II	II(ii)	III/IV	Pass	No Class Given	No 1st Degree	Overseas
Far Left	5	3	5	6	0	2	4	5	8
Left	51	54	46	53	42	41	41	44	42
Center	27	27	31	12	21	29	28	31	31
Right	17	16	18	29	37	29	27	20	19
Totals	(611)	(188)	(210)	(17)	(19)	(56)	(138)	(75)	(36)

7.52

Party	I	II(i)	II	II(ii)	III/IV	Pass	No Class Given	No 1st Degree	Overseas
Conservative	31	29	35	28	30	64	47	37	29
Labour	44	47	39	56	55	20	33	38	47
Liberal	16	14	16	11	10	11	10	12	6
Other/None	9	9	10	6	5	5	9	12	18
Totals	(580)	(181)	(198)	(18)	(20)	(55)	(134)	(73)	(34)

Tables 7.53-54 Spectrum and Party by Higher Degrees (per cent)

7.53

	Higher Degrees		
Spectrum	None	Masters	Ph.D.
Far Left	5	3	4
Mod. Left	48	49	48
Center	28	24	29
Right	19	24	19
Totals	(546)	(178)	(632)

7.54

	Higher Degrees		
Party	None	Masters	Ph.D.
Conservative	35	38	35
Labour	41	37	41
Liberal	12	16	15
Other/None	10	9	9
Totals	(536)	(171)	(593)

Table 7.55 Social Origin (Father's Occupation) by University Group of First Degree (per cent)

	University Group							
Father's Occupation	Ox-bridge	London	Major Re-brick	Minor Red-brick	Wales	Scot-land	Over-seas	No First Degree
Professional-	27	16	15	18	11	20	28	18
Non-manual	}73	}53	}50	}57	}42	}61	}80	}58
Intermediate	46	37	35	39	31	41	52	40
Skilled	25	42	42	32	42	29	16	32
Semi-skilled	3	4	7	11	16	8	1	5
	}3	}5	}8	}11	}16	}10	}4	}9
Unskilled	0	1	1	0	0	2	3	4
Totals	(399)	(249)	(267)	(44)	(62)	(189)	(69)	(77)

NOTES TO CHAPTER VIII

A preliminary approach to the measurement of types of academic orientations

The identification, measurement and analytical use of these types of academic orientations through the survey data must at this stage be most tentative and exploratory. We must do more by way of exploring different combinations of indicators and indices of the major dimensions; moreover, we want to study the extent of internal variations within each of the four types to see whether this conceptualization introduces more distortion than clarification into our analysis. Nevertheless, it may be useful to see the results of some preliminary efforts to identify and further characterize men holding these several orientations in our national sample of British university teachers.

The measure of the dimension of research-teaching orientations combined two questions asking for agreement or disagreement with the statements that "an academic man's first loyalty should be to research in his discipline..." (Q. 49(i)); and "promotion in academic life is too dependent on published work and too little on devotion to teaching" (Q 49(vii)).(1) To measure elitist-expansionist sentiments, we used responses to a question which asked

---

(1) Q.49(i) "An academic man's first loyalty should be to research in his discipline. The teaching of students and the running of his university should be second to this first duty of an academic career." ("Strongly agree" scored 3, "agree with reservations" scored 2, "disagree with reservations" scored 1, "strongly disagree" scored 0.)

Q.49(vii) "Promotion in academic life is too dependent on published work and too little on devotion to teaching." ("Strongly agree" scored 0, "agree with reservations" scored 1, "disagree with reservations" scored 2, "strongly disagree" scored 3.)

Distribution of research-teaching orientations (index)

	Teaching...						...Research	
Score	0	1	2	3	4	5	6	Total
Number	150	320	391	272	149	56	15	1353
Percent	11	24	29	20	11	4	1	

55 cases, or 4% of the sample, could not be scored.

This index differed from that used in Chapters IV and V to measure research-teaching orientations, since there we were interested in the individual's personal interests, while here we were more interested in his conception of the academic role.

the teacher what level of size and growth of the university system he supported.(2) Of the four responses, we used only the last response, "double the numbers in the next decade," to indicate the "expansionist" position. This is at variance with our practice in Chapter III, but here we were concerned with identifying those who support at least the rate of expansion in the post-Robbins decade: anything less cannot for our present purposes be called "expansionist."

This gave us four possible types of attitudes to expansion and to research and teaching: those who opposed expansion and favored research (punch 1), those who favored expansion and favored research (punch 2), those who opposed expansion and favored teaching (punch 3) and those who favored expansion and favored teaching (punch 4). We show the derivation of this typology from the index of attitudes to the academic role and Question 5 (attitudes to expansion) below.

A Typology of Academic Orientations
(punches assigned)

Q. 5 "Should we expand the university system?"

Research-teaching orientations (index)		Remain as it is	25%	50%	Double
Research primarily	6	1	1	1	2
	5	1	1	1	2
	4	1	1	1	2
	3	1	1	1	2
	2	3	3	3	4
	1	3	3	3	4
Teaching primarily	0	3	3	3	4

The numbers and proportions of academic men in each of our categories, measured in these ways, appears in Table 8.1 (on the following page).

---

(2) Q. 5: "Which of the following opinions regarding the number of students in the university as a whole lies closest to your own opinion? In each case please assume that staff and resources are made available." "We should double the numbers or more in the next decade"; "we should increase the numbers about 50 per cent in the next decade"; "we should increase the numbers about 25 per cent in the next decade"; "I think that the number of students admitted to universities should remain about where it is now."

Table 8.1 The Distribution of Academic Orientations

	Elitist	Expansionist
Researchers	1 25% (330)	2 11% (148)
Teachers	3 48% (628)	4 16% (210)

92 cases (7% of the sample) could not be typed.

The proportions and numbers in each of these categories are of no great significance, since they are so largely a function of the specific indicators and cutting points used. They are shown here to give the reader a sense of the stringency of the criteria used for allocation to any given category. We have used rather more stringent criteria here than in other chapters (and thus admit smaller numbers) in the definition of "researchers" and "expansionists"; these decisions we feel justified by our interests in the characteristics and location of the minorities who will carry the burden of reform and expansion within the university system.

But perhaps of greater interest is some evidence bearing on differences among these several categories. First, three tables showing correlated attitudes on various aspects of secondary and higher education among these several categories of academic orientations.

Table 8.2 Agreement that the tripartite (secondary) system should be replaced by comprehensives, by the Typology of Academic Orientations

	1 Elitist-Researchers		2 Expansionist-Researchers		3 Elitist-Teachers		4 Expansionist-Teachers	
Strongly agree	11		37		18		45	
Agree with reservations	32		35		33		36	
Disagree with reservations	33	57	14	27	28	49	15	19
Strongly disagree	24		13		21		4	
	(317)		(142)		(607)		(208)	

Table 8.3 Agreement that a major shortcoming of secondary education is premature specialization by Typology of Academic Orientations

	1 Elitist-Researchers		2 Expansionist-Researchers		3 Elitist-Teachers		4 Expansionist-Teachers	
Strongly agree	31		41		38		50	
Agree with reservations	35		34		41		37	
Disagree with reservations	30	34	21	24	17	22	12	14
Strongly disagree	4		3		5		2	
	(323)		(146)		(616)		(208)	

Table 8.4 Agreement that English universities over-emphasize the single-subject honours degree, by Typology of Academic Orientations

	1 Elitist-Researchers		2 Expansionist-Researchers		3 Elitist-Teachers		4 Expansionist-Teachers	
Strongly agree	11	46	18	59	12	61	27	72
Agree with reservations	35		41		49		45	
Disagree with reservations	38		30		28		23	
Strongly disagree	15		11		11		5	
	(323)		(147)		(612)		(204)	

In all three of these tables, we see the Elitist-Researchers most opposed to the comprehensive schools, and least inclined to criticize specialization, either in secondary school or the university, while at the other extreme we find the Expansionist-Teachers. These differences suggest links between educational perspectives and other social and political positions that we will want to explore more thoroughly.

APPENDIX B

THE QUESTIONNAIRE

The following is the part of the Robbins Committee's university teacher questionnaire used in this study:

1. Name
2. University
3. Sex: Male
   Female
4. Age at the 31st December, 1961
5. Marital status: Single
   Married with children
   Married without children
6. Post held: (a) Professor
   (b) Reader
   (c) Senior Lecturer
   (d) Lecturer (or college fellow of not less than 3 years standing not being Research Fellow)
   (e) Assistant Lecturer (or college fellow of less than three years standing not being Research Fellow)
   (f) Demonstrator
   (g) Research post
   (h) Other post (write in)
8. In which Faculty do you primarily work?
9. In which department do you primarily work? (Write in where applicable
10. **What is** your main subject?
18. A. First Degree(s)
    If you obtained more than one first degree please answer in respect of each.

	Names of First Degree(s) Obtained	Institution at which Obtained	Class* Obtained	Date of Completing Degree Course
One ...				
Two ...				
Three ...				

*If degree taken in more than one part give the class awarded on last part.

B. Higher Degree(s)
Please list all higher degrees other than those for which further study is not required.

	Name of Qualification	Institution at which Obtained	Date of Award
One ...			
Two ...			
Three ...			

19. Please list in chronological order in the manner shown below the sectors in which you have held full time appointments. In the University sector please give the grade of each full time post, and the name of the University. For posts in the other sectors the name of the post need not be given, and successive posts within one sector should be aggregated.

List of Sectors

- A. University: full time research posts.
- B. University: other posts.
- C. School teaching.
- D. Other teaching.
- E. Industry or commerce: research and development.
- F. Industry or commerce: other posts.
- G. Public Service (including nationalised industries) research and development.
- H. Public Service: other posts.
- J. Other posts (including military service).

Dates*	Sector (Indicate by Letter)	Length of Time	G.B./ Abroad	Grade (of any University Post)	Name of University

*Please state month and year when you took up duties in your present post.

The following is the follow-up questionnaire sent to all available respondents to the Robbins questionnaire:

1. University and/or College
2. University Department (if any)
3. Subject
4. Post (please give exact title of both university and college post)
5. Which of the following opinions concerning the number of students in the university system as a whole lies closest to your own opinion? In each case please assume that staff and resources are made available
    (a) We should double the numbers or more in the next decade
    (b) We should increase the numbers about 50 per cent in the next decade
    (c) We should increase the numbers about 25 per cent in the next decade
    (d) I think that the number of students admitted to universities should remain about where it is now
6. Do you feel that the expansion that has already taken place over the past decade has affected the quality of students admitted to your university in your subject?
    (a) It has lowered the average level of ability of my students very considerably in recent years
    (b) It has lowered the average level of ability of my students to some extent in recent years
    (c) It hasn't changed the quality of my students appreciably
    (d) The average level of ability of my students has risen in recent years
7. Do you think that CATs ought to be given university status? Yes No
8. Do you think that the number of new places in the university system in your subject should be expanded in the next decade?
    (a) No
    (b) Yes, but under 25 per cent
    (c) Yes, between 25 per cent and 75 per cent
    (d) Yes, over 75 per cent
9. Most of the new universities established since the war have been located in small town or rural areas. Are you in favour of that policy, or do you favour locating new universities in the large cities?
    (a) I favour locating new universities in small towns and/or rural areas
    (b) I favour locating new universities in the large cities
10. Here are some proportions of the relevant age group entering universities and other full-time institutions in different countries. Which of these proportions would you like to see in Britain? (The Robbins Report recommends raising the present proportion of 8.5% to 17% by 1980).
    40 per cent or more   20 per cent or more   5 per cent or less
    30 per cent or more   10 per cent or more
11. If the number of students doubled in the next decade with the same staff/student ratio, what would you expect to be the effect on the quality of graduates in your subject from your university?
    (a) Marked deterioration
    (b) Some deterioration
    (c) No change
    (d) An improvement
12. Do you think your present university as it is now organised is -
    Too big   About right   Too small

(Questions 13 to 16 concern departments. If you do not belong to a department or equivalent teaching and research unit, please skip to Question 17).

13. Do you think your present department is -
    Too big About right Too small
14. In its quality as a whole, how would you say your department stands in relation to departments in the same subject at other British universities?
    Much higher than average Lower than average
    Higher than average Much lower than average
    About average
15. How does the general reputation of your department in the academic world compare with your own assessment of its quality as a whole?
    (a) It has a better reputation than it deserves
    (b) It has the reputation it deserves
    (c) It has a lower reputation than it deserves
16. Compared with similar departments in other British universities would you describe your own department as above, below or average in the following respects? Above average, average, below average.
    Its teaching of undergraduates
    Its training of post-graduate students
    The research and scholarship carried on by its staff
    Its size and breadth of coverage of the field
    Its responsiveness to new ideas
17. Do your own interests lie primarily in teaching or in research?
    Very heavily in research
    In both, but with a leaning toward research
    In both, but with a leaning toward teaching
18. What are the major handicaps that you experience in carrying on research?
    Insufficient time because of teaching commitments
    Insufficient time because of commitments other than teaching
    Insufficient financial resources
    Slowness of machinery for obtaining equipment and/or books, etc.
    Insufficient contact with other workers in your field
    Insufficiencies in your library
    Unresponsiveness of university administration to your research needs
    Unresponsiveness of your departmental or college administration to your needs
19. Do you feel under pressure to do more research than you would actually like to do? Yes, a lot Yes, a little No
20. Apart from time, are the resources available to you (library, literary facilities, etc.) adequate for the kind of scholarly or scientific research you are doing?
    Excellent Somewhat inadequate
    Adequate Highly inadequate
21. Are you able to carry on research during term?
    A substantial part of it Only a little of it Almost none
22. Have you ever had a leave of absence for a term or more while on the staff of any British university? Yes No
    If yes: What kind of leave?
    Paid or partly paid sabbatical leave
    Unpaid leave of absence
    Paid or partly paid leave of absence

23. If you have had such a leave -
    a) How recently was the latest?
    b) Was it from your present university?
    c) What was its duration?
    d) Where did you spend it?
    e) What did you do during your leave?

24. Do you expect to remain at your present university until you retire?
    Definitely yes
    Probably yes
    Probably no
    Definitely no
    Don't know

25. In general, how do you feel about your present university?
    It is a very good place for me
    It is a fairly good place for me
    It is not a good place for me

26. Is there any other British university in which you would prefer to hold a post roughly equivalent to the one you hold here?
    Yes   No   Don't know
    If yes, which one (if more than one, given highest preference)?

27. Have you applied for a post (including your present post) within the last year?   Yes   No

28. Do you anticipate that you will be applying for a post at another university in the next three years?
    Almost certainly will not
    Probably will not
    Probably will
    Almost certainly will

29. How would you view an opportunity to join the staff of one of the new universities at a higher rank?
    I would not consider going to any of them
    I might go to some but not to others
    I would accept an offer at almost any of them
    I already hold a chair at my present university

30. How would you view an opportunity to join the staff of one of the new universities at your present rank?
    I would not consider going to any of them
    I might go to some but not to others
    I would accept an offer at almost any of them

31. Do you like the city or town in which your university is located?
    Strong liking
    Moderate liking
    Moderate dislike
    Strong dislike

32. (i) Since taking a university post in the United Kingdom, have you ever seriously considered accepting a permanent post in a university abroad?   Yes   No
    (ii) If Yes, where have you considered going?
        Canada
        Australia or New Zealand
        United States
        Africa
        Somewhere else (specify)

33. Which of the following university posts would be most attractive to you personally? (Would you mark them 1,2,3,4 in order of preference?)
    University Lecturer and College Fellow at Cambridge
    Professor at Brighton
    Professorial head of a department at Leeds
    Reader in the University of London

34. (FOR THOSE BELOW THE RANK OF PROFESSOR)
How likely do you think it is that you will eventually be appointed to a Chair at your present university?
- Almost certainly
- Quite probably
- Almost certainly not
- Not applicable
- Possibly, but not probable

35. (FOR THOSE BELOW THE RANK OF PROFESSOR)
How likely do you think it is that you will eventually be offered a Chair in a British university?
- Already offered
- Almost certainly
- Quite probably
- Possibly but not probably
- Almost certainly not

36. (FOR THOSE BELOW THE RANK OF PROFESSOR)
Do you think of yourself as more or less likely than other university teachers of your age and rank to be offered a Chair eventually?
- Already offered
- More likely
- About the same
- Less likely

37. (FOR ASSISTANT LECTURERS AND LECTURERS)
Do you expect to be offered a Senior Lectureship or Readership?
- Already offered
- Within 5 years
- In 5-10 years
- In 10 years or more
- Never

38. Since gaining your first academic appointment, have you ever seriously considered leaving academic life permanently?
- Yes, have given it serious consideration
- Yes, considered it, but not seriously
- No

39. Have you ever held office in a national or international academic, learned or professional society? Yes No

40. How many academic articles have you published?
- None
- 1 to 4
- 5 to 10
- 10 to 20
- More than 20
- Year latest article was published

41. Have you written a book which was published?
- (a) Yes
- (b) No
- (c) If yes, how many
- (d) Year latest book was published

42. Are you preparing a book for publication? Yes No

43. How do you keep in touch with current and recent work in your subject? Please indicate the importance to you of the following methods - Very important, fairly important, not important
- Reading journals and/or bulletins
- Newsletter and information bulletins
- Offprints sent to you by colleagues in British universities
- Conversation with department colleagues
- Conversation with colleagues in your subject at other British universities
- Correspondence

44. Have you been abroad for primarily professional and scholarly reasons during the past 12 months? Yes No
If yes, how many times

45. How much do you enjoy each of the following of your present university activities? Very much, moderately, very little
- Teaching
- Contact with students
- Research
- Discussions with colleagues
- Administration and policy making in the university (college) and department

46. Are you pleased with having chosen your present subject ? Yes No

47. Are you sometimes regretful that you did not choose to work in another academic field? Yes No

48. Are there any public activities outside your university duties that take up an appreciable amount of your time? Yes No
IF YES, what are they?

49. Please indicate your agreement or disagreement with the following opinions:
Strongly agree, agree with reservations, disagree with reservations, strongly disagree

    (i) An academic man's first loyalty should be to research in his discipline. The teaching of students and the running of his university should be second to this first duty of an academic career
    (ii) University education in Britain puts too little emphasis on the training of experts and too much on the education of widely cultivated men
    (iii) Valid criticism of the English universities is that they overemphasise the single subject honours degree
    (iv) A professorship ought to be part of the normal expectation of an academic career and not a special attainment of a minority of university teachers
    (v) A university department with more than eight members of staff should have more than one member of professorial rank
    (vi) Most university teachers of my subject put too much emphasis on teaching compared with research
    (vii) Promotion in academic life is too dependent on published work and too little on devotion to teaching
    (viii) A serious disadvantage of Redbrick universities is that all too often they are run by a professorial oligarchy
    (ix) Most British university departments would be better run by the method of circulating chairmanship than by a permanent Head of Department
    (x) The tripartite system of grammar, modern and technical schools should be supplanted by a system of comprehensive schools
    (xi) A serious shortcoming of the present system of secondary education is premature specialisation
    (xii) The essential quality of British university life should be preserved by expanding the non-university forms of higher education rather than the universities
    (xiii) In order to do full justice to his position, an academic man has to subordinate all aspects of his life to his work

50. "The general balance of university studies in Britain is such that the following faculties are given insufficient support". Mark the faculties to which, in your opinion, this statement applies:

    Pure science
    Arts
    Law
    Medicine
    Technology
    Social sciences

51. In the general pattern of British university education do you feel that your own subject receives -

    Less support than it deserves
    About as much support as it deserves
    More support than it deserves

52. How interested are you in politics?

    Extremely interested
    Moderately interested
    Only slightly interested
    Not interested

53. What Party have you generally supported?
Labour Liberal None
Conservative Other

54. Where would you place yourself in the following political spectrum?
Far Left Centre Far Right
Moderate Left Moderate Right

55. (i) What is (was) your father's occupation? Please be as specific as possible: for example, if a teacher, at what level of education?
(ii) Is (was) he self-employed or an employee?

56. In what religious denomination were you brought up?

57. What is your present denomination?

58. Do you consider yourself -
Deeply religious Large indifferent to religion
Moderately religious Basically opposed to religion

59. What was the age at which your parents left school?

	Mother	Father
13 or younger		
14		
15		
16		
17		
18 or older		
don't know		

60. Did either have any higher education?

	Mother	Father
University (where)		
Other higher education (kind)		

61. Is your wife a university graduate? Yes No

62. In what kind of school did you get the major part of your secondary education?
Grammar None
Direct grant Other (specify)
Public school (which)

63. Do you have any children of secondary school age or older? Yes No
If "yes", what kinds of schools are they attending or did they attend?
Age
Sex
Type of secondary education
Type of further education. If university, which?

The questionnaire sent to teachers at the CATs and Sussex contained the items both from the Robbins study and from our own questionnaire.

APPENDIX C

A CHRONOLOGY OF RESEARCH OPERATIONS

The inquiry began in 1963 with a series of interviews, long and open-ended, among university teachers at the Universities of Birmingham, Cambridge, the London School of Economics, Reading, Leicester and Edinburgh. Altogether 114 university teachers were interviewed in 1963. These interviews, which averaged two to three hours in length, were recorded on tape and then transcribed in full. The teachers who were interviewed were chosen to provide a roughly representative sample of all academic ranks and subjects.

The next step was to base a national questionnaire on the interview material. For this purpose we negotiated with the Robbins Committee to re-survey the one in five sample of university teachers surveyed by them in 1962 (the results of the original Robbins Survey are in Appendix III of the Report of the Committee on Higher Education). The number of people in the original Robbins sample was 3498 of whom 3098 had responded. Of this 3098 we in fact approached 2865, the rest having had their identification erased on a random basis on order that the Robbins questionnaries could be shown to interested parties.

A questionnaire, reported in Appendix B, was developed during 1963, in part on the basis of the intensive open-ended interviews we have described. This questionnaire was informally pre-tested and revised a number of times. With the questionnaire in hand, our follow-up inquiry was launched in April 1964 with a circular letter asking the original respondents to indicate their willingness or unwillingness to be re-surveyed. Those who were willing to participate further were then sent the questionnaire in April and May of 1964. The response rate on this main follow-up inquiry was as follows: the sample 2864, questionnaires returned 1407; proportion of questionnaires returned 49%. Proportion of questionnaires returned, subtracting from the original table those who had in the meantime died, retired or were absent abroad, 51%.

The next step was a decision to extend the follow-up inquiry to include a new university (Sussex) and three Colleges of Advanced Technology (Salford, Birmingham and Brunel). The Sussex questionnaires went out in April 1965 to every member of the faculty who had not already filled in a questionnaire through having been a member of some other university and included in the main sample. The total number distributed to teachers at Sussex was 180, and 134 completed questionnaires were returned, a response rate of 74%.

The extended survey of the CATs took place in November and December of 1964. The numbers involved were as follows:

	Total Number of Faculty	Questionnaire Returned
Salford	289	168
Birmingham	267	143
Brunel	128	72

These figures give a total of 383 returned questionnaires representing a response rate or 56%, i.e., 56% for Brunel, 53% for Birmingham and 58% for Salford.

In the case of Sussex and the three CATs it should be noted that we included the essential information from the original Robbins inquiry as well as our own follow-up questions in a composite questionnaire.

These follow-up questionnaires were coded and punched at Oxford, and analysis begun using punch cards in Oxford, and with the data transferred to tapes the following year in California.

APPENDIX D

RESEARCH PROPOSAL

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

INSTITUTE OF INTERNATIONAL STUDIES
Berkeley 4, California

A STUDY OF THE UNIVERSITY TEACHERS OF GREAT BRITAIN

Principal Investigator: Martin A. Trow
Associate Professor of Sociology
Institute of International Studies

To: Basic and Applied Research Program
Cooperative Research Branch
U.S. Office of Education
Washington, D.C. 20202

Support Requested: $27,386

Period: March 1, 1965 - October 1, 1966

Date: August, 1964

Martin A. Trow
Principal Investigator

David E. Apter, Acting Director
Institute of International Studies

S. S. Elberg
Dean of the Graduate Division

D-2

Basic and Applied Research Proposal

Submitted to the U.S. Commissioner of Education under
the Provisions of Public Law 531

Project Title: A Study of the University
Teachers of Great Britain

Submitted by: University of California
Institute of International Studies
Berkeley, California 94720

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Date Transmitted: August 26, 1964

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A Study of the University Teachers of Great Britain

1. Abstract

(a) Objectives

This study of British university teachers is aimed at extending knowledge about the characteristics and functions of a strategic element in the educational, economic and political life of Great Britain, at a time when that country is undertaking major reforms and expansions of its university systems. The study has three aspects:

(1) A study of the historical development of the British academic profession in modern times.

(2) A detailed portrait of the academic profession as it is now constituted: their social recruitment and career lines, the distribution of their time and energies among teaching, research, university administration, and other kinds of public and educational services; and their attitudes toward a range of educational and social issues that bear on the current evolution of British higher education. This analysis will be carried out within different faculties and fields of study by academic rank, and by university category.

(3) An analysis of the characteristics and functions of the academic profession, and their implications for: (a) university organization and development; (b) the growth and development of specific fields of study; and (c) the evolution of the larger society, its economic growth, intellectual life, and social structure.

While the focus of the study will be the British academic profession, the study will also introduce a comparative analysis and materials, especially data drawn from the American literature, and will aim to contribute to the comparative study of higher education.

(b) Procedures

The study described above is already under way. Dr. A. H. Halsey of the University of Oxford, and I have gathered and are currently analysing data of three kinds:

(1) Historical data, educational statistics, university histories, published and unpublished documents and public records of all kinds bearing on the British academic profession over the past one hundred years.

(2) Intensive interviews with a sample of academic men in British universities.

(3) Questionnaire data gathered (a) by the Prime Minister's Committee on Higher Education (the Robbins Committee) and (b) through our own questionnaire distributed to the sample to which the Robbins questionnaire was circulated.

Over the next two years we propose: (1) to gather some additional survey data from British academics; (2) to analyse both the Robbins and our own surveys of British academic men; and (3) to write a report based on the historical and survey data we have gathered on the academic profession in Britain.

2. Problem

The "problem" to which this study addresses itself is a broad one: it is to explore the development of the teaching and research staff of British universities, their present social characteristics, and the relationship between the characteristics of university teachers and (a) the organization and character of British universities and (b) certain aspects of the political and social structures of British society. This broad "problem area" clearly encompasses a large variety of more specific problems, substantive, theoretical, and methodological. Some of these will reveal themselves in the course of the analysis, but it is possible already to identify several in each category.

A central substantive interest of the study is to assess the responsiveness of present British academics to the reform and expansion of British higher education presently under way. In what sections of the academic community is support for university expansion strongest, and in what parts most strongly resisted? Is support or opposition to such expansion related to an academic man's own social origins; his broader social and political commitments; his own career line and teaching experience; his academic discipline; the kind of university in which he teaches; the dominant climate of his specific university; his interest in teaching versus research; or in some combination of these individual and contextual factors?

A closely related substantive problem is the nature, sources and consequences of the conflicting demands on academic men to engage in both the transmission and the creation of knowledge. The tension between the demands on academic men to engage in teaching and research are widely recognized; these tensions assume different forms, and have quite different consequences in different disciplines, kinds of universities, and for men of different training and rank. The exploration of this problem in the British universities will have clear implications for the very similar problem in American higher education.

An important problem with obvious policy implications for America as well as Britain is the question of how newly established universities can recruit a first class faculty without possessing the traditional lines of communications and recruitment channels of the older universities. We will be interested in the kinds of men who are drawn to the new universities in England, what their distinctive characteristics are, and how they came to the posts they now hold. We will be particularly interested in whether these men plan to pursue intellectual or pedagogical innovations under circumstances apparently less constrained by the traditional departmental and instructional organization of the older universities. This question clearly bears on the conditions associated with innovations in academic life, a question of increasing importance in a society undergoing rapid intellectual and institutional change.

A somewhat more "theoretical" problem centers on the relative strength of social origins as compared with adult status in shaping professional and social orientations. We would expect to find academic men from working and lower middle class origins to favor the broad expansion of higher education, an expansion which would presumably facilitate access to higher education from the social classes from which they themselves derived. On the other hand, teachers in the ancient universities and in certain of the more traditional fields of study are less likely to favor larger university expansion out of a concern for the possible loss of traditional

British university values. But what of men from humble origins teaching in these more conservative contexts: do they retain the values associated with their origins, or have processes of selective recruitment and adult socialization assimilated them to the more conservative values of their university or field of study? Answers to these questions would shed light, among other things, on the extent to which, and the processes whereby, adult intellectual communities are able to shape the perspectives of members from diverse social origins, and would thus contribute to the sociology of intellectual life, and also to the sociology of professions.

On the methodological side, the study will also serve as a pilot study for a series of studies of the academic profession in other advanced and developing countries which are projected for the future.

3. Related Literature

There is a paucity of systematic empirical research on the academic profession. The three-volume study of German university teachers, H. Plessner, ed., Untersuchungen zur lage der deutschen Hochschullehrer (Investigations into the Position of the German University Teacher) Gottingen, Vandenhoeck and Ruprecht, 1956, is perhaps the most comprehensive study within a single education system. In Great Britain a number of governmental surveys, capped by the Robbins Survey, reported in Appendix III of the Robbins Report (Higher Education - Report of the Committee appointed by the Prime Minister under the chairmanship of Lord Robbins, 1961-63. Cmnd. 2154 London, H. M. Stationery Office, 1963), provide basic demographic data on the academic profession in Britain, but little analysis of the role or functions of the university teacher. In the United States there is no national empirical study of the academic man, although useful contributions to our knowledge of the American university teacher's situation can be found in T. Caplow and R. J. McGee, The Academic Marketplace, New York, Basic Books, 1958; P. Lazarsfeld and W. Thiellens, The Academic Mind, Glencoe, Ill., the Free Press, 1958; David Riesman, Constraint and Variety in American Education, New York, Doubleday Anchor Books, 1958; Logan Wilson, The Academic Man, New York, Oxford University Press, 1942; and Florian Znaniecki, The Social Role of the Man of Knowledge, New York, Columbia University Press, 1940. A volume of essays on The Status of University Teachers, edited by Richard H. Shryock, (Ghent, Belgium, International Association of University Professors and Lecturers, 1961) provides some comparative data from sixteen nations.

There is a very rich literature on higher education in Great Britain. Among the more important recent works are B. Truscott, Red Brick University, rev. ed., London, Pelican Books, 1951; Sir E. Ashby, Technology and the Academics, London, Macmillan, 1958; and on university government, R. O. Berdahl, British Universities are the State, Berkeley and Los Angeles, University of California Press, 1959. The periodical literature can be illustrated by A. H. Halsey's "British Universities," European Journal of Sociology, vol. 3, no. 1, 1962. An important historical and comparative essay on university development in four countries, including Britain, is J. Ben-David and A. Zloczower, "Universities and Academic Systems in Modern Societies," European Journal of Sociology, vol. 3, no. 1, 1962. Other important essays on university organization and government appear in Universities Quarterly and in Minerva: A Review of Science, Learning and Policy, as well as in the publications of the Organization for Economic Cooperation and Development.

There is an extensive American literature on recruitment to the academic role, on graduate and professional training, on faculty appointment and retention policies, and so forth. Many of these essays appear in the A.A.U.P. Bulletin; other representative titles are L. S. Woodburne, Faculty Personnel Policies in Higher Education, New York, Harper and Brothers, 1950; J. E. Stecklein and Ruth Eckert, An Exploratory Study of Factors Influencing the Choice of College Teaching as a Career, Cooperative Research Program, U.S. Office of Education, 1958; and Bernard Berelson, Graduate Education in the United States, New York, McGraw-Hill, 1960. The essays by A. W. Gouldner, "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles," Parts I and II, Administrative Science Quarterly, vol. 2, Dec. 1957 and March 1958, are an important contribution to a typology of academic orientations to their disciplines and home institutions. Burton Clark's essay on "Faculty Authority," A.A.U.P. Bulletin, vol. 47, no. 4, Winter 1961, advances our understanding of the role of the faculty in the governance of American higher education. In addition, a study with which Professor Trow has been associated currently under way at the Center for the Study of Higher Education in Berkeley, has studied the faculties at eight American colleges and universities to assess their character and impact on students.

There is, in a different but also relevant tradition, increasing interest in the academic profession as part of the educated elite in developing countries. An important contribution to that subject is Edward Shils, The Intellectual Between Tradition and Modernity, The Hague, Mouton and Co., 1961.

4. Objectives

The objectives of the study are discussed also below under the heading Procedure. They are, in brief, to develop a detailed history of the rise of the university profession in Britain from the beginning of the Victorian provincial universities, together with a sociological portrait of contemporary academic men as part of the intellectual elite of British society.

Among the more specific questions to be answered are the following:

(1) What has been the changing character of the British academic profession in recent decades: the number of posts and their rate of growth in each of the various Faculties and Departments, the changing ratio of teaching staff to other staff in the universities, the changing proportion of professional to non-professional posts?

(2) What is the formal and informal organization of instruction and research in British universities, and how does this differ among the several Faculties and categories of university? Among the crucial questions here are: what is the nature of the authority exercised by the "Professor" in different disciplines and universities; and what are the forces which affect the relative emphasis on teaching and research in different universities and disciplines?

(3) What are the social and demographic characteristics of the academic profession in Britain? In principle all British universities are equal, with common salary scales, level of government support, and so forth. Behind the myth of uniformity, what are the facts (and sources) of diversity, at least in the quality and character of staff?

(4) What is the nature of social recruitment to the academic profession? What are the patterns of their education and training? How do these patterns differ by discipline, and university category? To what extent have these patterns of recruitment been changing over time, and what are the implications of these trends for education and the social structure? What is the relation of the social recruitment of academic men to their patterns of educational and professional mobility that we uncover?

(5) What is the university teacher's job, both as it is done and as it is perceived? We are especially interested here in the distribution of the academic man's time and energy among teaching, research, and university administration, as well as in his conceptions of the proper and primary roles of university teachers. This question has been explored to some extent in the Robbins Report (Appendix III), but we wish to study the sources of variation in conception and performances of the role as well as the consequences of those variations, both for individual careers and for the different academic institutions and disciplines.

(6) What are the distributions of attitudes in the academic profession toward such crucial educational issues as (a) the expansion of student numbers; (b) an increase in the number of British universities; (c) a growth in the size of the universities; (d) the location of the new universities; (e) the relative need for growth in various disciplines and faculties. The aim here is not merely to sketch a portrait of academic sentiment on these issues, but to explain the sources of differences among various segments of the academic profession.

(7) What is the nature of the relation of university teachers to the environing society? To what extent is there a continuing relation to the non-academic intellectual community through journalism and the like? How much direct or indirect participation is there in economic and political institutions by way of consulting, service on government bodies, etc.? What are the trends in these regards? And what are the implications of those trends for the social role of the man of knowledge in an increasingly professionalized society?

These are among the questions the study will be addressing. They all are related to the central objective, which is to contribute to our understanding of the changing roles and functions of the academic profession in the educational and cultural life of a modern industrial society.

5. Procedures

A substantial part of the basic data collection has already been completed. The data are broadly of three kinds:

(a) Materials bearing on the development of the academic profession in Britain over the past one hundred years. These take the form of published and unpublished statistics, university records, histories and public documents.

(b) The research team in an earlier phase of the study, have gathered about one hundred intensive interviews (tape recorded and transcribed) with a roughly representative sample of academic men in six British and Scottish universities: the Universities of Oxford, Reading, Leicester, Edinburgh, Birmingham, and the London School of Economics. The interviews explored the central themes of the inquiry in depth, and were also the basis on which a questionnaire for wider circulation was distributed.

(c) The study has survey data in hand from two sources. One of these is the survey conducted by a Governmental Committee on Higher Education under the Chairmanship of Lord Robbins carried out between 1961 and 1963. The study has been published in a Report and several Appendices, which together are commonly known as the Robbins Report. One aspect of the work of the Robbins Committee was a study of university teachers carried out through a questionnaire distributed to a representative sample of one in four of the whole body of British university teachers. With the agreement and cooperation of that Committee, our study was given the basic data they had collected, and in addition we were permitted to circulate our own questionnaire to their sample, matching our identification numbers with theirs so as to allow joint analysis of the two bodies of data. The Robbins Committee circulated 3,498 questionnaires, and received 3,000 usable questionnaires in return for a response rate of 80%. Our own survey distributed 2,800 questionnaires of which 1,385 were returned for a response rate of about 50% of live and available respondents. However, since we possess considerable information on the whole of the Robbins sample, we are in a position to assess the characteristics of our non-respondents, and therefore to estimate how representative our sample is of the whole body of British university teachers when we wish to generalize our findings to that population.

The Robbins questionnaire, as may be seen in Appendix III, Annex W of that report, was concerned largely with collecting basic demographic data about British university teachers, especially with regard to their education, qualifications, and career lines, and beyond that focussed on their distribution of time and energies, and on their modes of instruction. Our own questionnaire, a copy of which is attached, goes still further to questions about their social recruitment, their views on many educational and social issues, and their professional commitments and orientations. We are, of course, able to add that data to the data collected from the same individuals by the Robbins Committee.

The survey data will be subjected to multivariate analysis similar to that employed in the study Union Democracy (Glencoe, Ill., The Free Press, 1957), of which the present applicant was a co-author. Multivariate analysis is an approach to the analysis of quantitative data which involves the study and interpretation of complex inter-relations among a large number of social and psychological variables. Typically, the analysis starts with a relation between two variables, and introduces additional variables, simultaneously and seriatim for further elaboration of the analysis. A variety of different forms of interpretation and explanation of relationships is thus made possible, depending on the order of the variables, the statistical relations among them, and other considerations. An introduction to multivariate analysis can be found in Paul S. Lazarsfeld and Morris Rosenberg, eds., The Language of Social Research, Glencoe, Ill., The Free Press, 1955, pp. 111 ff.

Over the next two years we will be engaged in the following tasks:

(1) the analysis of the historical and survey data already gathered;

(2) the collection and the analysis of a small additional number of intensive interviews with strategic categories of academic men. The categories themselves will be uncovered in the course of the analysis of the survey data, which will point to certain parts of the university system which are under special strains or which exhibit especially interesting characteristics. (An example might be research-minded young scientists holding posts in the smaller universities.)

(3) the expansion of our survey to include additional numbers of the staffs of newly established universities to add to the small numbers from those institutions produced by the nation-wide representative samples. This is an important enough category of universities to warrant some additional attention. We have tentatively selected the University of Sussex for this purpose. We also plan to administer the questionnaire to the faculty of a College of Advanced Technology, a category of institutions which is only now being granted full university status on the recommendation of the Robbins Committee. We have tentatively selected the Birmingham C.A.T. for this effort. These additional surveys will not in the strict sense be a part of our representative sample of British academic men, but careful internal comparisons will allow at least provisional assessments of their special characteristics as compared with academics in the older universities.

The remainder of the data collection, and preliminary analysis of the data already on hand will be completed by March 1965. The bulk of the analysis will be done in England between March 15 and September 1, 1965. The Report will be completed during the academic year 1965-66 by Dr. Halsey in England and Professor Trow in California. A short trip by Professor Trow to Oxford during that year will allow for necessary consultation on the final drafts. The Report will be completed by September 1, 1966.

6. Personnel

The senior researchers are: Dr. A. H. Halsey, Head of the Department of Social and Administrative Studies, University of Oxford, and Fellow of Nuffield College, and Professor Martin Trow, Associate Professor of Sociology, University of California, Berkeley.

Collaborating with us is Professor Edward Shils, Senior Fellow of Kings College Cambridge, and Professor of Social Thought, University of Chicago. We also have the help and assistance of Dr. Peter Collison, of the Department of Social and Administrative Studies at Oxford, and Mrs. Jean Floud, Fellow of Nuffield College, University of Oxford.

Dr. Halsey took his undergraduate work at the London School of Economics, where he also earned his doctorate. He has taught at the Universities of Liverpool, Birmingham, and Chicago, before taking his appointment at Oxford as Head of the Department of Social and Administrative Studies and Fellow of Nuffield College. During 1956-57 he was a Fellow at the Center for Advanced Study in the Behavioral Sciences, and has served on examining teams of the Organization for Economic Co-Operation and Development in their studies of higher education and scientific manpower in the United States, France and Sweden. He is a member of the Research Committee on the Sociology of Education of the International Sociological Association.

Among Dr. Halsey's relevant writings are the following:

(With Jean Floud) Social Class and Educational Opportunity, London, Heineman, 1957.

(With Jean Floud) "The Sociology of Education," Current Sociology, vol. 12, no. 3, 1958.

"British Universities and Intellectual Life," Universities Quarterly, vol. 12, February, 1958.

"The Changing Functions of Universities in Advanced Industrial Societies," Harvard Educational Review, vol. 30, no. 2, 1960.

(With Jean Floud and C. A. Anderson, eds.,) Education, Economy, and Society, Glencoe, The Free Press, 1961.

"British Universities," European Journal of Sociology, vol. 3, no. 1, 1962.

"The Academic Hierarchy," Universities Quarterly, vol. 18, no. 2, March 1964.

Professor Trow took his undergraduate degree in engineering, and earned his doctorate in sociology at Columbia University, where he also served as a research associate at the Bureau of Applied Social Research. He taught at Bennington College before accepting a joint appointment in the Departments of Education and Sociology at the University of California at Berkeley, where he is currently an Associate Professor in the Department of Sociology. He teaches primarily in the fields of the sociology of education and in research methods. He served for six years as a research sociologist on the staff of the Center for the Study of Higher Education at Berkeley, and has served as a consultant to the Educational Testing Service, Princeton, N.J., and to various research projects in higher education. Currently he is a consultant to a study directed by Dr. Benson Snyder on modes of adaptation to stress at the Massachusetts Institute of Technology. He spent four months, between March and August 1963, as a Visiting Fellow, Nuffield College, Oxford, engaged in the preliminary phases of the study herein described, and conducted about 40 intensive interviews with British faculty members at L.S.E., Leicester, and Edinburgh, as well as visiting other British universities more briefly. In November 1963 he was invited to present a paper reviewing the newly published Robbins Report from an American perspective at the Gulbenkian Educational Conferences, held at Ditchley Park, Oxon. This paper appears in Universities Quarterly, March 1964.

Dr. Trow has served as Chairman of the Section on the Sociology of Education of the American Sociological Association and is an Associate Editor of Sociology of Education. He is also a member of the Research Committee on Sociology of Education of the International Sociological Association.

Among Professor Trow's writings relevant to this study are the following:

(With S. M. Lipset and J. S. Coleman) Union Democracy, Glencoe, The Free Press, 1957.

"Some Implications of the Social Origins of Engineers," Scientific Manpower 1958, National Science Foundation, Washington, D.C., 1959.

"Reflections on the Recruitment to College Teaching," in Halsey, Floud and Anderson, eds., Education, Economy and Society, Glencoe, Ill., The Free Press, 1961.

(With Burton R. Clark) "Determinants of College Student Subcultures," The Center for the Study of Higher Education, Berkeley, California, 1961.

"The Democratization of Higher Education in America," European Journal of Sociology, vol. 3, no. 2, (1962).

"The Role of the Social Sciences in Planning for Higher Education," Proceedin of the Symposium on Undergraduate Environment, Bowdoin College, Brunswick, Maine, 1963.

"A Question of Size and Shape: The Robbins Report," Universities Quarterly, vol. 18, no. 2, March 1964.

"Education and Survey Research," in C. Glock, G. Selznick, and H. Selvin, eds Reader in the Application of Survey Research (forthcoming).

7. Facilities

Professor Trow is associated with both the Institute of International Studies, Berkeley, and with the Survey Research Center, Berkeley and has access to the professional and technical facilities of both these centers. This includes the calculating machinery and computers of the Survey Research Center. Dr. Halsey has the cooperation and use of the very large computer center at the Harwell Atomic Energy Laboratories near Oxford.

8. Other Information

(a) This research to date has been supported chiefly by British sources, mainly by the University of Oxford and Nuffield College. The Elmhurst Foundation, also British, contributed $2,800 toward Professor Trow's expenses while in Britain in 1963. During the summer of 1964 Professor Trow was a member of the staff of the Center for International Studies, Berkeley, but no other American support for this study has been granted.

(b) This proposal has not been submitted to any other agency or organization.

(c) This is not a proposed extension of, or addition to, any previous or current project supported by the Office of Education or any other group or agency

(d) Neither this or a similar proposal is being submitted to the Office of Education, other than through this proposal.

9. Budget

Cooperative Research Project

Budget Worksheet

Investigator: M. A. Trow
Institution: Univ. of Calif. (B)

Duration: 1 year, 7 months
Beginning Date: 3/1/65 Ending Date: 10/1/66

Categories	1964-65 4 months Federal	 Local	1965-66 12 months Federal	 Local	1966-67 3 months Federal	 Local	All Years Total Federal	 Local
Personnel								
Pr. Investigator - M. A. Trow, .33 FTE, Assoc. Prof., step 2 (annual 9-mos rate, $11,000) Spring sem.(1/9th)	1,412*	--	--	1,815*	--	--	1,412*	1,815*
M. A. Trow, summer salary, Assoc. Prof., step 2 (annual 9-mos rate, $11,000) 3 mos at 1/9th rate	611	--	3,667	--	2,878	--	7,156	--
Res Asst, step 3 .50 FTE (annual rate $6,060, 11-mos)	1,515	--	3,030	--	505	--	5,050	--
Gen'l Assce (Sec'y assce at $2.14 per hr;	300*	200*	600*	300*	100*	50*	1,000*	550*
typing assce for reproducing final report at $2.04 per hr)	--	--	--	--	200*	--	200*	--
Total Salaries	3,838	200	7,297	2,115	3,683	50	14,818	2,365
Employee Benefits								
(10% of salaries marked by *)	171	20	60	212	30	5	261	237
Supplies & Materials								
Data Collection	500	--	--	--	--	--	500	--
Rental of tape recorder at $25 per mo	100	--	300	--	--	--	400	--
Supplies, incl. paper, postage, telephone, data cards, etc.	150	--	300	--	50	--	500	--

Categories	1964-65 4 months Federal	 Local	1965-66 12 months Federal	 Local	1966-67 3 months Federal	 Local	All Years Total Federal	 Local
Services								
Computer service (approx. $60 per hour plus occasional special programming)	1,000	--	1,500	--	500	--	3,000	--
Duplicating (mimeographing incl. final report)	50	--	100	--	550	--	700	--
Other								
Consulting fees (10 days at $50 per day)	100	--	400	--	--	--	500	--
Travel: Rt fare (tourist jet) to Great Britain, incl. helicopter	781	--	781	--	--	--	1,562	--
Per diem in Great Britain: 30 days at $16 per day	480	--	--	--	--	--	480	--
Local travel: approx. 1,000 miles at 10 cents per mi.	100	--	--	--	--	--	100	--
Sub-total	7,270	220	10,738	2,327	4,813	55	22,821	2,602
Overhead								
20% of total federal cost	1,454	44	2,148	465	963	11	4,565	520
Total	8,724	264	12,886	2,792	5,776	66	27,386	3,122

Note: Salaries, service charges, travel costs, etc., must conform to the standard rate of the institution.

10. Attachments

A copy of the instrument circulated to the Robbins sample, as described above, is attached to the original copy of this proposal. The Robbins questionnaire is reproduced in Appendix III of the Robbins Report.